Air Quality
ENVIRONMENTAL QUALITY

PAT MCCRORY
Governor

DONALD R. VAN DER VAART
Secretary

SHEILA C. HOLMAN
Director

TBD

Mr. William Thacker
Plant Manager
Duke Energy Progress, LLC.
1700 Dunnaway Road
Semora, NC 27343

SUBJECT: Air Quality Permit No. 01001T49
Facility ID: 7300029
Duke Energy Progress, LLC
Roxboro Steam Electric Plant
Semora, Person County, North Carolina
Fee Class: Title V

Dear Mr. Thacker:

In accordance with your completed Air Quality Permit Applications for a renewal and modification of a Phase II Acid Rain permit, received June 26, 2014 and June 26, 2015, we are forwarding herewith Air Quality Permit No. 01001T49 to Duke Energy Progress, LLC, Roxboro, Person County, North Carolina authorizing the construction and operation of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 2Q .0503(8) have been listed for informational purposes as an ATTACHMENT. Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of NCGS 143-215-108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

This Air Quality Permit shall be effective from TBD until TBD, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

The changes made to the permit are summarized in an attachment to this letter. Should you have any questions concerning these changes, please contact Russell Braswell at 919-707-8731 or russell.braswell@ncdenr.gov.

Sincerely,

William D. Willets, P.E., Chief, Permitting Section
Division of Air Quality, NCDEQ

Enclosure

c: Heather Ceron, EPA Region 4
Raleigh Regional Office
Central Files

Attachment 1 to cover letter of Air Quality Permit 01001T49
Duke Energy Progress, LLC, Roxboro Steam Electric Plant

Insignificant Activities under 15A NCAC 2Q .0503(8)

Emission Source I.D.	Emission Source Description
IS-1	No. 2 fuel oil tank; 100,000 gallons
IS-2	No. 2 fuel oil tank; 500,000 gallons
IS-3	Lube oil storage tank; 8,000 gallons for U1 turbine lube oil
IS-4	Lube oil storage tank; 8,000 gallons for U2 turbine lube oil
IS-5	Two lube oil storage tanks; 9,000 gallons each for U3&4 turbine lube oil
IS-6	Bulk lube oil tank; 7,500 gallons at U1&2
IS-7	Batch lube oil tank; 12,000 gallons at U1&2
IS-8	Batch lube oil tank; 15,000 gallons at U3&4
IS-9	Gasoline tank; 1,500 gallons at A Warehouse
IS-10	One kerosene tank; 250 gallons (Dozer shed)
IS-12	Two kerosene tanks; 1,000 gallons each for fuel oil farm\U3&4
IS-13	Ethylene glycol tank; 6,000 gallons
IS-14	Diesel tank; 250 gallons for IC turbine
IS-15	Diesel tank; 1,000 gallons (Bottom Ash off-road diesel)
IS-16	Diesel tank; 2,000 gallons (Charah shop off-road diesel)
IS-17	Ethylene glycol tank; 265 gallons (Dozer shed)
IS-18	Hydraulic oil storage tank; 500 gallons (Dozer shed)
IS-19	Engine oil storage tank; 500 gallons (Dozer shed)
IS-20	30 assorted lube oil storage tanks; 55 to 265 gallons each
IS-21	Two used oil waste separator tanks; 500 gallons each
IS-22	Used oil portable tank; 350 gallons
IS-24	Two used oil portable tanks; 300 gallons each
IS-25	Fuel oil storage day tank; 280 gallons for emergency fire pump
IS-26	IC turbine lube oil reservoir; 1,800 gallons
IS-29	Vacuum cleaner outside near the dry flyash silos
IS-30	Four cooling towers that do not use chromate chemicals
IS-36	Fugitive emissions from coal handling/storage, plant parking lots, paved roads, unpaved roads, coal pile and ash handling
IS-37	Gypsum conveyor 1A
IS-38	Gypsum emergency conveyor
IS-39	Gypsum conveyor 1B
IS-40	Emergency gypsum pile
IS-41	Mayo gypsum rotary feeder
IS-42	Mayo gypsum conveyor
IS-43	Gypsum conveyor 2
IS-44	Gypsum conveyor 3 (includes 3a and 3b)
IS-45	Off-specification gypsum pile
IS-46	On-specification gypsum pile
IS-47	Gypsum conveyor 4
IS-48	Landfill gypsum loading hopper
IS-49	Landfill gypsum reclaim belt feeder

Emission Source I.D.	Emission Source Description
IS-50	Diesel tank; 10,500 off road diesel (Dozer shed)
IS-51	Unleaded gasoline tank, 500 gallons (Charah Shop)
IS-52	Diesel tank; 2000 gallons (Charah Shop on-road diesel)
IS-53	Diesel Tank; 1000 gallons (Charah Gypsum pad off-road diesel)
IS-54	Used oil shop tank; 125 gallons (Dozer shed)

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.

2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 2D .1100 "Control of Toxic Air Pollutants" or 2Q .0711 "Emission Rates Requiring a Permit".

3. For additional information regarding the applicability of GACT see the DAQ page titled "The Regulatory Guide for Insignificant Activities/Permits Exempt Activities". The link to this sites is as follows: http://daq.state.nc.us/permits/insig/

Attachment 2 to cover letter of Air Quality Permit 01001T49
Duke Energy Progress, LLC, Roxboro Steam Electric Plant

Summary of Changes to Permit

The following changes were made to the Progress Energy - Roxboro Plant Air Permit No. 01001T48:

Page No.*	Section No.*	Description of Changes
Throughout	Throughout	• Updated dates • Updated permit/application numbers • Removed references to CAIR because the rule no longer applies. • Added references to CSAPR. • Fixed formatting
	2.2.B.	• Added section for CSAPR requirements.
	2.4.	• Updated acid rain permit to reflect new averaging plan.
	2.5. (former)	• Removed CAIR requirements • Removed this section
	3.	• Updated general conditions to v4.0.

*This refers to the current permit unless otherwise stated.

State of North Carolina
Department of Environmental Quality
Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Effective Date	Expiration Date
01001T49	01001T48	TBD	TBD

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes, Subchapters 2D and 2Q, and other applicable Laws.

Pursuant to Title 15A NCAC Subchapter 2Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete air quality permit application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee: **Duke Energy Progress, LLC – Roxboro Steam Electric Plant**

Facility ID: **7300029**

Facility Site Location: **1700 Dunnaway Road**
City, County, State, Zip: **Semora, Person County, NC 27343**

Mailing Address: **1700 Dunnaway Road**
City, State, Zip: **Semora, NC 27343**

Application Numbers: **7300029.14A & .15C**
Complete Application Date: **June 26, 2014 (.14A), June 26, 2015 (.15C)**

Primary SIC Code: **4911**
Division of Air Quality, Regional Office Address: **Raleigh Regional Office**
3800 Barrett Drive
Raleigh, NC 27609

Permit issued this the TBD.

William D. Willets, P.E., Chief, Permitting Section
By Authority of the Environmental Management Commission

Table Of Contents

ATTACHMENTS

SECTION 1- PERMITTED EMISSION SOURCE(S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE(S)

The following table contains a summary of all permitted emission sources and associated air pollution control devices:

Page	Emission Source I.D. No.	Emission Source Description	Control Device I.D. No.	Control Device Description
	ES-Unit 1 **MACT UUUUU**	coal/No. 2 fuel oil/recycled No. 2 fuel oil-fired electric utility boiler (4722 million Btu per hour nominally rated heat input) equipped with low-NO_X burner and alkaline-based fuel additive[h]	CD-SCR1[a] CD-ESP1 CD-FGD1[c] CD-INJ-Sorb1 (consisting of ES-SORB-17, ES-SORB-18, ES-SORB-19 and ES-SORB-20) CD-INJ-Sorb5[i] (consisting of ES-Sorb-1, ES-Sorb-2 and ES-Sorb-3)	a selective catalytic reduction system installed in series with electrostatic precipitator (Environmental Elements cold-side model) venting to wet scrubber sorbent injection system temporary sorbent injection system
	ES-Unit 2 **MACT UUUUU**	coal/No. 2 fuel oil/recycled No. 2 fuel oil-fired electric utility boiler (7035 million Btu per hour nominally rated heat input) equipped with low-NO_X burner and alkaline-based fuel additive[h]	CD-SCR2[a] CD-ESP2 CD-FGD2[c] CD-INJ-Sorb2 (consisting of ES-SORB-13, ES-SORB-14, ES-SORB-15 and ES-SORB-16)	a selective catalytic reduction system installed in series with electrostatic precipitator (Environmental Elements cold-side model) venting to wet scrubber sorbent injection system
	ES-Unit 3A ES-Unit 3B **MACT UUUUU**	two coal/No. 2 fuel oil/recycled No. 2 fuel oil-fired electric utility boilers (4261 million Btu per hour nominally rated heat input each) equipped with low-NO_X burners and alkaline-based fuel additive[h]	CD-SCR3a & CD-SCR3b[a] CD-ESP3a & CD-ESP3b CD-FGD3[c] CD-INJ-Sorb3 (consisting of ES-SORB-9, ES-SORB-10, ES-SORB-11 and ES-SORB-12)	two selective catalytic reduction systems (one per boiler) installed in series with two electrostatic precipitators (Lodge-Cottrell cold-side model) (one per boiler) venting to wet scrubber sorbent injection system
	ES-Unit 4A ES-Unit 4B **NSPS** **MACT UUUUU**	two coal/No. 2 fuel oil/recycled No. 2 fuel oil-fired electric utility boilers (4099 million Btu per hour nominally rated heat input each) equipped with low-NO_X burners and alkaline-based fuel additive[h]	CD-SCR4a & CD-SCR4b[a] CD-ESP4a through CD-ESP4h CD-FGD4[c] CD-INJ-Sorb4 (consisting of ES-SORB-5, ES-SORB-6, ES-SORB-7 and ES-SORB-8)	two selective catalytic reduction systems (one per boiler) installed in series with eight electrostatic precipitators (Buell hot-side model) (four per boiler) venting to wet scrubber sorbent injection system

Page	Emission Source I.D. No.	Emission Source Description	Control Device I.D. No.	Control Device Description
	ES-IC Turbine	No. 2 fuel oil-fired simple-cycle internal combustion turbine (265 million Btu per hour nominally rated heat input)	NA	NA
	ES-Surge Bin 1	Unit No. 1 dry flyash conveying system surge/transfer tank	CD-1-1, CD-1-2, CD-1-3, CD-BF11, CD-BF12, CD-BF13, CD-BF14	three transfer cyclones installed in series with four bagfilters (three with 484 square feet of filter area each and one with 164 square feet of filter area)
	ES-Surge Bin 3	Unit No. 3 dry flyash conveying system surge/transfer tank	CD-3-1, CD-3-2, CD-3-3, CD-BF15, CD-BF16, CD-BF17, CD-BF18	three transfer cyclones installed in series with four bagfilters (three with 1,567 square feet of filter area each and one with 164 square feet of filter area)
	ES-Surge Bin 4	Unit No. 4 dry flyash conveying system surge/transfer tank	CD-4-1, CD-4-2, CD-4-3, CD-BF19, CD-BF20, CD-BF21, CD-BF22	three transfer cyclones installed in series with four bagfilters (three with 1,106 square feet of filter area each and one with 164 square feet of filter area)
	ES-FA Silo 1 ES-FA Silo 2 ES-FA Silo 4	three flyash conveying system storage and handling silos	CD-BF1, CD-BF2, CD-BF3, CD-BF4, CD-BF7, CD-BF8	six bagfilters (2,450 square feet of filter area each) (two per silo)
	ES-S-1	No. 1 flyash conveying system storage and handling silo and load-out stations	CD-WS1, CD-WS2	five wet flyash conditioners (minimum ten percent by weight water injection rate)
	ES-S-4	No. 4 flyash conveying system storage and handling silo and load-out stations	CD-WS3, CD-WS4, CD-WS5	
	ES-S-3L	electrostatic flyash separation system and mineral-rich product load-out silo	CD-BF23	bagfilter (680 square feet of filter area)
	ES-EFSS1 ES-EFSS2	two electrostatic flyash separation systems and associated conveying systems	CD-BF24	bagfilter (1,554 square feet of filter area)
	ES-Coal Silo 1 ES-Coal Silo 2 ES-Coal Silo 3 ES-Coal Silo 4 ES-Coal Silo 5 ES-Coal Silo 6 **NSPS**	six coal storage silos	NA	NA
	ES-SVS1	stationary vacuum system for housekeeping	CD-BF26	bagfilter (integral to vacuum system)
	ES-FA Silo 3	flyash conveying system storage and handling silo	CD-BF5 CD-BF6	two bagfilters (2,450 square feet of filter area each)
	ES-S-3L2	mineral-rich flyash loadout system (28 tons per hour nominal filling rate and 300 tons per hour nominal unloading rate)		
	ES-37A, ES-37B,	four coal conveyors (375 tons per hour nominal rated capacity each)	NA	NA

Page	Emission Source I.D. No.	Emission Source Description	Control Device I.D. No.	Control Device Description
	ES-39A, ES-39B **NSPS**			
	ES-Coal Hopper **NSPS**	coal unloading hopper (4,800 tons per hour nominal rated capacity) with wet suppression	NA	NA
	ES-Coal Conv 1 **NSPS**	925 feet long x 72 inches wide coal conveyor (4,800 tons per hour nominal rated capacity)	NA	NA
	ES-Coal Conv 2 **NSPS**	425 feet long x 72 inches wide coal conveyor (4,800 tons per hour nominal rated capacity)	NA	NA
	ES-LS Rail	limestone rail unloading station (2,200 tons per hour nominal rated capacity) with wet suppression	NA	NA
	ES-LS Unload A ES-LS Unload B **NSPS**	two limestone unloading hoppers	NA	NA
	ES-LS Feeder 1 **NSPS**	37 feet long x 72 inches wide belt feeder (2,200 tons per hour nominal rated capacity) with enclosed transfer	NA	NA
	ES-LS Convey 2 **NSPS**	471 feet long x 48 inches wide covered limestone conveyor (2,200 tons per hour nominal rated capacity) with telescopic chute for dust control while stockpiling	NA	NA
	ES-LS Reclaim A ES-LS Reclaim B **NSPS**	two limestone reclaim hoppers located under limestone stockpile with enclosed transfer	NA	NA
	ES-LS Feeder 3A ES-LS Feeder 3B **NSPS**	two 20 feet long x 36 inches wide belt feeders (480 tons per hour nominal rated capacity each) with enclosed transfer	NA	NA
	ES-LS Convey 4A **NSPS**	610 feet long x 30 inches wide covered limestone conveyor (480 tons per hour nominal rated capacity) with enclosed transfer and head-end dust collection	CD-LB-BF-1	bagfilter (2,655 square feet of filter area) installed common to head-end transfer points of Conveyers 4A, 4B, 5, and 6, to tail-end transfer points of Conveyors 5, 6, 7, and to Limestone Silos A, B, and C
	ES-LS Convey 4B **NSPS**	610 feet long x 30 inches wide covered limestone conveyor (480 tons per hour nominal rated capacity) with enclosed transfer and head-end dust collection	CD-LB-BF-1	bagfilter (2,655 square feet of filter area) installed common to head-end transfer points of Conveyers 4A, 4B, 5, and 6, to tail-end transfer points of Conveyors 5, 6, 7, and to Limestone Silos A, B, and C
	ES-LS Convey 5 **NSPS**	42 feet long x 30 inches wide limestone conveyor (480 tons per hour nominal rated capacity) that feeds Limestone Silo A and has enclosed transfer dust collection	CD-LB-BF-1	bagfilter (2,655 square feet of filter area) installed common to head-end transfer points of Conveyers 4A, 4B, 5, and 6, to tail-end transfer points of Conveyors 5, 6, 7, and to Limestone Silos A, B, and C

Page	Emission Source I.D. No.	Emission Source Description	Control Device I.D. No.	Control Device Description
	ES-LS Convey 6 **NSPS**	42 feet long x 30 inches wide limestone conveyor (480 tons per hour nominal rated capacity) that can feed either Limestone Silo C or Limestone Conveyor 7 and has enclosed transfer dust collection	CD-LB-BF-1	bagfilter (2,655 square feet of filter area) installed common to head-end transfer points of Conveyers 4A, 4B, 5, and 6, to tail-end transfer points of Conveyors 5, 6, 7, and to Limestone Silos A, B, and C
	ES-LS Convey 7 **NSPS**	198 feet long x 30 inches wide limestone conveyor (480 tons per hour nominal rated capacity) that feeds the Mayo Limestone Silo and has enclosed transfer dust collection	CD-LB-BF-1	bagfilter (2,655 square feet of filter area) installed common to head-end transfer points of Conveyers 4A, 4B, 5, and 6, to tail-end transfer points of Conveyors 5, 6, 7, and to Limestone Silos A, B, and C
			CD-LB-BF-2	bagfilter (641 square feet of filter area) installed common to Mayo Limestone Silo and head-end of Conveyor 7
	ES-LS Silo A ES-LS Silo B ES-LS Silo C **NSPS**	three limestone silos (572 tons/13,468 cubic feet storage capacity each)	CD-LB-BF-1	bagfilter (2,655 square feet of filter area) installed common to head-end transfer points of Conveyers 4A, 4B, 5, and 6, to tail-end transfer points of Conveyors 5, 6, 7, and to Limestone Silos A, B, and C
	ES-LS Mayo Silo **NSPS**	limestone silo storing material for Mayo plant (600 tons/14,117 cubic feet storage capacity)	CD-LB-BF-2	bagfilter (641 square feet of filter area) installed common to Mayo Limestone Silo and head-end of Conveyor 7
	ES-Truck Spout **NSPS**	truck loading spout from Mayo Limestone Silo	CD-LB-BF-3	bagfilter (480 square feet of filter area)
	ES-LS Grinder 1 ES-LS Grinder 2 ES-LS Grinder 3 **NSPS**	three wet limestone grinders (50 tons per hour nominal rated limestone capacity)	NA	NA
	ES-CBO-FBC **NSPS**	flyash-fired fluidized bed combustor (46.98 tons per hour flyash burn capacity)	CD-CBO-FBC-BF-1	bagfilter (8,854 square feet of filter area)
	ES-CBO Silo 1	CBO feedash silo	CD-CBO-FS-BF-1	bagfilter (1,685 square feet of filter area)
	ES-CBO Silo 2	CBO recycle ash silo	CD-CBO-RS-BF-1	bagfilter (605 square feet of filter area)
	ES-CBO Dome	CBO product dome	CD-CBO-PD-BF-1	bagfilter (2,938 square feet of filter area)
	ES-WWTBR	wastewater treatment bioreactor	NA	NA
	ES-FWP2 **NSPS**	one 175 HP diesel fired emergency fire water pump	NA	NA
	ES-Sorb-1	Sorbent Receiving Trailer	CD-BF-Sorb-1	bagfilter (264 square feet of filter area)
	ES-Sorb-2	Sorbent Metering Trailer		
	ES-Sorb-3	Pneumatic Equipment Trailer	NA	NA
	ES-SORB-5	stationary sorbent Silo 1 for Unit 4	CD-SORB-5	bagfilter (1.6:1 air-to-cloth ratio)

Page	Emission Source I.D. No.	Emission Source Description	Control Device I.D. No.	Control Device Description
	ES-SORB-6	stationary sorbent Silo 2 for Unit 4	CD-SORB-6	bagfilter (1.6:1 air-to-cloth ratio)
	ES-SORB-7	Unit 4 Silo 1 pneumatic conveying equipment system (4000 pounds per hour maximum capacity)	NA	NA
	ES-SORB-8	Unit 4 Silo 2 pneumatic conveying equipment system (4000 pounds per hour maximum capacity)	NA	NA
	ES-SORB-9	stationary sorbent Silo 1 for Unit 3	CD-SORB-9	bagfilter (1.6:1 air-to-cloth ratio)
	ES-SORB-10	stationary sorbent Silo 2 for Unit 3	CD-SORB-10	bagfilter (1.6:1 air-to-cloth ratio)
	ES-SORB-11	Unit 3 Silo 1 pneumatic conveying equipment system (4000 pounds per hour maximum capacity)	NA	NA
	ES-SORB-12	Unit 3 Silo 2 pneumatic conveying equipment system (4000 pounds per hour maximum capacity)	NA	NA
	ES-SORB-13	stationary sorbent Silo 1 for Unit 2	CD-SORB-13	bagfilter (1.6:1 air-to-cloth ratio)
	ES-SORB-14	stationary sorbent Silo 2 for Unit 2	CD-SORB-14	bagfilter (1.6:1 air-to-cloth ratio)
	ES-SORB-15	Unit 2 Silo 1 pneumatic conveying equipment system (4000 pounds per hour maximum capacity)	NA	NA
	ES-SORB-16	Unit 2 Silo 2 pneumatic conveying equipment system (4000 pounds per hour maximum capacity)	NA	NA
	ES-SORB-17	stationary sorbent Silo 1 for Unit 1	CD-SORB-17	bagfilter (1.6:1 air-to-cloth ratio)
	ES-SORB-18	stationary sorbent Silo 2 for Unit 1	CD-SORB-18	bagfilter (1.6:1 air-to-cloth ratio)
	ES-SORB-19	Unit 1 Silo 1 pneumatic conveying equipment system (4000 pounds per hour maximum capacity)	NA	NA
	ES-SORB-20	Unit 1 Silo 2 pneumatic conveying equipment system (4000 pounds per hour maximum capacity)	NA	NA
	ES-31 **MACT ZZZZ**	one No. 2 fuel oil-fired 287 hp emergency fire water pump diesel engine	NA	NA
	ES-32A ES-32B **MACT ZZZZ**	two propane-fired 34 kW emergency generator spark ignition engines	NA	NA

a For ozone season NOx control and compliance with the North Carolina Clean Smokestacks Act (SB 1078 - Air Quality/Electric Utilities Bill). Operated on an as needed basis.

c For compliance with the North Carolina Clean Smokestacks Act (SB 1078 - Air Quality/Electric Utilities Bill) and the Phase II Acid Rain permit requirements. Operated on an as needed basis.

h Alkaline-based fuel additive may be used on an as-needed basis not to exceed 4 pounds per ton of coal burned. Fuel additives shall not contain any toxic air pollutants listed in 15A NCAC 2Q .0711.

i Temporary sorbent injection system ID No. CD-INJ-Sorb5 may be used as a backup to the permanent system on either Unit 1, 2, 3 or 4 as needed. This system was previously permitted on Unit 4 as ID No. CD-Sorb4.

SECTION 2- SPECIFIC LIMITATIONS AND CONDITIONS

2.1- Emission Source(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) listed below are subject to the following specific terms, conditions, and limitations, including the monitoring, recordkeeping, and reporting requirements specifically identified herein as applicable requirements:

A.

- **coal/No. 2 fuel oil/recycled No. 2 fuel oil-fired electric utility boiler equipped with low-NO_X burner and $Mg(OH)_2$ fuel additive (ID No. ES-Unit 1) and associated selective catalytic reduction system (ID No. CD-SCR1) installed in series with electrostatic precipitator (ID Nos. CD-ESP1) and a wet scrubber (ID No. CD-FGD1), sorbent injection system (ID No. CD-INJ-Sorb1), and temporary sorbent injection system (ID No. CD-INJ-Sorb5)**

- **coal/No. 2 fuel oil/recycled No. 2 fuel oil-fired electric utility boiler equipped with low-NO_X burner and $Mg(OH)_2$ fuel additive (ID No. ES-Unit 2) and associated selective catalytic reduction system (ID No. CD-SCR2) installed in series with electrostatic precipitator (ID No. CD-ESP2) and a wet scrubber (ID No. CD-FGD2), and sorbent injection system (ID No. CD-INJ-Sorb2)**

- **two coal/No. 2 fuel oil/recycled No. 2 fuel oil-fired electric utility boilers equipped with low-NO_X burners and $Mg(OH)_2$ fuel additive (ID Nos. ES-Unit 3A and ES-Unit 3B) and associated selective catalytic reduction systems (ID Nos. CD-SCR3a and CD-SCR3b) installed in series with two electrostatic precipitators (ID Nos. CD-ESP3a and CD-ESP3b) and a wet scrubber (ID No. CD-FGD3), and sorbent injection system (ID No. CD-INJ-Sorb3)**

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
sulfur dioxide	0.547 pounds per million Btu heat input	15A NCAC 2D .0501(c)
	Phase II Acid Rain Permit Requirements (see Section 2.4)	15A NCAC 2Q .0402 (40 CFR Part 72)
	(Federally Enforceable Only) Cross State Air Pollution Rule Requirements	40 CFR Part 97, Subpart CCCCC
particulate matter	**As determined by stack test:** Unit 1 Boiler - 0.25 pounds per million Btu heat input Unit 2 Boiler - 0.16 pounds per million Btu heat input Unit 3A Boiler - 0.10 pounds per million Btu heat input Unit 3B Boiler - 0.10 pounds per million Btu heat input **As determined by PM CEMS:** Unit 1 Boiler - 0.10 pounds per million Btu heat input Unit 2 Boiler - 0.10 pounds per million Btu heat input Unit 3A Boiler - 0.10 pounds per million Btu heat input Unit 3B Boiler - 0.10 pounds per million Btu heat input	15A NCAC 2D .0536

Regulated Pollutant	Limits/Standards	Applicable Regulation
nitrogen oxides	**when burning only coal** 1.8 pounds per million Btu heat input **when burning only oil or natural gas** 0.8 pounds per million Btu heat input **when burning both coal and oil or natural gas** E = [(Ec)(Qc) + (Eo)(Qo)]/Qt where: E = emission limit for combined burning of coal and oil or gas in pounds per million Btu heat input Ec = 1.8 pounds per million Btu heat input for coal only Eo = 0.8 pounds per million Btu heat input for used oil or gas Qc = coal heat input in Btu per hour Qo = oil and gas heat input in Btu per hour Qt = Qc + Qo	15A NCAC 2D .0519
	1.066 pounds per million Btu heat input **or** the limit above when burning oil whichever is lower	15A NCAC 2D .0501(c)
	Phase II Acid Rain Permit Requirements (see Section 2.4)	15A NCAC 2Q .0407 (40 CFR Part 72)
	(Federally Enforceable Only) Cross State Air Pollution Rule Requirements	40 CFR Part 97, Subparts AAAAA and BBBBB
visible emissions	visible emissions shall not be more than 40 percent opacity when averaged over a six-minute period except that six-minute periods averaging not more than 90 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period.	15A NCAC 2D .0521
	State-only Requirement Unit 1 Boiler - 15 percent annual average opacity Unit 2 Boiler - 20 percent annual average opacity Unit 3A Boiler - 25 percent annual average opacity Unit 3B Boiler - 25 percent annual average opacity	15A NCAC 2D .0536
malfunction abatement plan	as defined in specific conditions	15A NCAC 2D .0535
excess emissions/ good operating and maintenance practices	as defined in specific conditions	15A NCAC 2D .0606
toxic air pollutants	See Section 2.2 A.1 State-only requirement	15A NCAC 2D .1100
toxic air pollutants	as defined in specific conditions State-only requirement	15A NCAC 2Q .0700
Mercury	See Section 2.1.A.10	15A NCAC 2D .2500
Hazardous Air Pollutants	See Section 2.1.A.11	15A NCAC 2D .1111 **MACT** (40 CFR 63, Subpart UUUUU)

1. 15A NCAC 2D .0519: CONTROL OF NITROGEN OXIDES EMISSIONS

a. Emissions of nitrogen oxides from these sources when burning coal and/or oil shall be calculated by the following
equation [15A NCAC 2D .0519]:

E = [(Ec)(Qc) + (Eo)(Qo)]/Qt where:

E = emission limit for combined burning of coal and oil or gas in pounds per million Btu heat input
Ec = 1.8 pounds per million Btu heat input for coal only
Eo = 0.8 pounds per million Btu heat input for oil or gas
Qc = coal heat input in Btu per hour
Qo = oil and gas heat input in Btu per hour
Qt = Qc + Qo

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0519.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

c. The Permittee shall assure compliance with 15A NCAC 2D .0519 by determining nitrogen oxide emissions in pounds per million Btu using a continuous emissions monitoring (CEM) system meeting the requirements of 40 CFR Part 75 except that unbiased values may be used (missing data shall be filled in accordance with 40 CFR Part 75). Compliance with this emission standard shall be determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values (missing data shall be filled in accordance with 40 CFR Part 75) shall be summed, and the sum shall be divided by 24. The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75.

For monitoring purposes, the following emission limits will apply:
i. When only coal is burned, the emission limit shall be 1.8 pounds per million Btu heat input.
ii. When only oil or gas is burned, the emission limit shall be 0.8 pounds per million Btu heat input.
iii. When oil or gas is burned other than for startup and for periods greater than 24 hours, the emission limit shall be calculated in accordance with the equation in Section 2.1 A.1. a. above.

If any 24-hour block average exceeds the emission limit, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0519.

d. The Permittee shall maintain records of monthly coal and oil consumption (written or electronic form) and shall submit such records within 30 days of a request by DAQ. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0519 if these records are not maintained.

Reporting [15A NCAC 2Q .508(f)]

e. The Permittee shall submit the continuous emissions monitoring system data showing the 24-hour daily block values for periods of excess nitrogen oxide emissions no later than January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

f. CEMs Monitor Availability - The Permittee shall submit the nitrogen oxide CEM systems monitor downtime reports, including monitor availability values (as calculated for 40 CFR Part 75) for the last hour of the reporting period, no later than January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June.

2. 15A NCAC 2D .0501(c): COMPLIANCE WITH EMISSION CONTROL STANDARDS

a. In addition to any control or manner of operation necessary to meet emission standards in 15A NCAC 2D .0500, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards of 15A NCAC 2D .0400 to be exceeded at any point

beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in 15A NCAC 2D .0500 are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls. [15A NCAC 2D .0501(c)]

b. Emissions of sulfur dioxide from these sources shall not exceed **0.547 pounds per million Btu heat input** in accordance with the modeling analysis received May 16, 2007. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0501(c)]

c. Emissions of nitrogen oxides from these sources shall not exceed either **1.066 pounds per million Btu heat input** (in accordance with the modeling analysis received May 16, 2007) or the limit in Section 2.1 A.1.a above when burning oil, whichever is lower. [15A NCAC 2D .0501(c)]

Testing [15A NCAC 2D .2601]

d. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limits given in Sections 2.1 A.2.b or c above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0501(c).

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f) and 2D .0608]

e. The Permittee shall assure compliance with 15A NCAC 2D .0501(c) by determining sulfur dioxide and nitrogen oxides emissions in pounds per million Btu using continuous emissions monitoring (CEM) systems meeting the requirements of 40 CFR Part 75 except that unbiased values may be used (missing data shall be filled in accordance with 40 CFR Part 75). Compliance with sulfur dioxide and nitrogen oxides emission standards shall be determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values (missing data shall be filled in accordance with 40 CFR Part 75) shall be summed, and the sum shall be divided by 24. The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75. If any 24-hour block average exceeds the limits given in Sections 2.1 A.2.b or c above or records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0501(c).

Reporting [15A NCAC 2Q .0508(f)]

f. The Permittee shall submit the continuous emissions monitoring data showing the 24-hour daily block values in pounds per million Btu for each 24-hour daily block averaging period during the reporting period no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. All instances of deviations from the requirements of this permit must be clearly identified.

g. CEMs Monitor Availability - The Permittee shall submit sulfur dioxide and nitrogen oxides CEM systems monitor downtime reports, including monitor availability values (as calculated for 40 CFR Part 75) for the last hour of the reporting period, no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September.

3. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions shall not be more than **40 percent opacity** when averaged over a six-minute period except that six-minute periods averaging not more than 90 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period. [15A NCAC 2D .0521(c)]

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 A.3.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

c. Opacity shall be measured by conducting Method 9 performance tests in accordance with §60.45(b)(7)

according to the applicable schedule in §60.45(b)(7)(i). Records shall be maintained according to the requirements specified in §60.45(h) for all Method 9 performance tests required. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if the monitoring is not performed, if the monitored values exceed the limitations given above, or if the records are not maintained. For the purposes of this condition, it is not necessary to submit a testing protocol prior to the scheduled test date, as specified in General Condition JJ, if no changes are being made to the most recently approved previous protocol used for Method 9 testing under this condition. If the most recently approved previous protocol is to be used for testing, it shall be submitted with the test report.

Reporting [15A NCAC 2Q .0508(f)]

d. The Permittee shall report the results of all Method 9 performance tests with the excess emissions and monitoring system performance reports in accordance with the reporting requirements given in Section 2.1 A.7.d no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 2D .0535: EXCESS EMISSIONS REPORTING AND MALFUNCTIONS

a. All electric utility boiler units shall have a malfunction abatement plan approved by the Director as specified in 15A NCAC 2D .0535(d). [15A NCAC 2D .0535]

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

b. The Permittee shall maintain logs to show that the operation and maintenance parts of the malfunction abatement plan are implemented. These logs (written or electronic form) shall be subject to inspection by DAQ personnel upon request during business hours. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0535 if these records are not maintained.

5. 15A NCAC 2D .0536: PARTICULATE EMISSIONS FROM ELECTRIC UTILITY BOILERS

a. Emissions of particulate matter from these sources shall not exceed the following: [15A NCAC 2D .0536(b)]
Unit 1 Boiler - 0.25 pounds per million Btu heat input
Unit 2 Boiler - 0.16 pounds per million Btu heat input
Unit 3A Boiler - 0.10 pounds per million Btu heat input
Unit 3B Boiler - 0.10 pounds per million Btu heat input

b. Any use of the electrostatic precipitator high voltage control Energy Management System (EMS) feature requires a revision to this permit.

Testing [15A NCAC 2D .2601and 15A NCAC 2D .0536]

c. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limits given in Section 2.1 A.5.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0536.

d. A stack test shall be conducted for particulate matter in accordance with Method 5B of Appendix A of 40 CFR Part 60 once per calendar year. In the event that a boiler exceeds 80 percent of its particulate emission limit during the stack test, the Permittee shall schedule and conduct another stack test within 6 months. Upon demonstration that the source is operating under 80 percent of its particulate limit, as shown by three consecutive semiannual stack tests, the source may resume annual stack tests. If the result of any stack test is greater than the limits given in Section 2.1 A.5.a, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0536.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

e. Compliance with the particulate limit in Section 2.1.A.5.a shall be determined using the PM CEMS. A measured exceedance of the pounds per million Btu heat input values below shall be a violation of the corresponding emission standards in Section 2.1.A.5.a.
Unit 1 Boiler - 0.10 pounds per million Btu heat input (24-hour daily arithmetic average)
Unit 2 Boiler - 0.10 pounds per million Btu heat input (24-hour daily arithmetic average)
Unit 3A Boiler - 0.10 pounds per million Btu heat input (24-hour daily arithmetic average)

Unit 3B Boiler - 0.10 pounds per million Btu heat input (24-hour daily arithmetic average)

i. Each PM CEMS shall meet the requirements of Performance Specification PS-11 of Appendix B of 40 CFR Part 60; and shall be installed, evaluated, operated, and maintained according to the applicable requirements in §60.49Da(v), §§60.45(b)(5), (b)(7), and (g)(4). The Permittee shall have on file with the director an approved quality assurance program, and shall submit to the director within the time period of his request for his approval a revised quality assurance program to include the provisions of 40 CFR 60, Appendix F, Procedure 2 for the PM CEMS.

ii. The initial performance evaluation shall be completed no later than 180 days after the date of notification to the DAQ of the first instance the Permittee selects the compliance option under Section 2.1.A.3.a.ii [PM CEMS].

iii. The PM emission rate shall be determined based on a 24-hour daily (block) average of the hourly arithmetic average emissions concentrations using the CEMS outlet data each boiler operating day, except for data obtained during startup, shutdown, and malfunction. Averages are only calculated for boiler operating days that have valid data for at least 18 hours of unit operation during which the standard applies. Instead, all of the valid hourly emission rates of the operating day(s) not meeting the minimum 18 hours valid data daily average requirement are averaged with all of the valid hourly emission rates of the next boiler operating day with 18 hours or more of valid PM CEMS data to determine compliance. The 24-hour block arithmetic average emission concentration shall be calculated using EPA Reference Method 19 of Appendix A of 40 CFR Part 60, section 4.1.

iv. At a minimum, valid PM CEMS hourly averages shall be obtained for 75 percent of all operating hours on a 30-day rolling average basis. Beginning on January 1, 2012, valid PM CEMS hourly averages shall be obtained for 90 percent of all operating hours on a 30-day rolling average basis. At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

v. The 1-hour arithmetic averages of PM CEMS data shall be expressed in pounds per million Btu and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of Subpart A of 40 CFR Part 60.

vi. All valid PM CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph iv above are not met.

vii. When PM emissions data are not obtained because of PM CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the DAQ or EPA Reference Method 19 of Appendix A of 40 CFR Part 60 to provide, as necessary, valid emissions data for a minimum of 90 percent (only 75 percent is required prior to January 1, 2012) of all operating hours per 30-day rolling average.

If the results of the 24-hour daily arithmetic average PM CEMS concentration exceeds the limit in Section 2.1.A.5.e or any of the above requirements are not met, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0536.

Reporting [15A NCAC 2Q .0508(f)]

f. The Permittee shall submit excess emissions and monitoring system performance reports for PM in accordance with the reporting requirements given in Section 2.1 A.7.c.i no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. The report shall include, at a minimum, the information required in 40 CFR 60.7(c) and shall include all 24-hour daily (block) average excess emissions (pounds per million Btu) using the CEMS outlet data, including periods exempted during startup, shutdown, and malfunction; within 15 days of a written request, report **all** PM CEMS hourly averages (in written or electronic form) to show, at a minimum, that valid PM CEMS hourly averages have been obtained for 90 percent (only 75 percent is required prior to January 1, 2012) of all operating hours on a 30-day rolling average basis.

g. The results of any stack test shall be reported within 30 days, and the test report shall be submitted within 60 days after the test.

h. All instances of deviations from the requirements of this permit must be clearly identified.

State-only Requirement

6. 15A NCAC 2D .0536: ANNUAL AVERAGE OPACITY FOR ELECTRIC UTILITY BOILERS

a. Visible emissions from the utility boiler units shall not exceed the following: [15A NCAC 2D .0536(b)]

ID No.	Average Annual Opacity
ES-Unit 1	15 percent
ES-Unit 2	20 percent
ES-Unit 3A	25 percent
ES-Unit 3B	25 percent

b. The Permittee shall calculate each day an annual average opacity value for the most recent 365-day period ending with the end of the previous day. The average is the sum of the measured non-overlapping one-hour averages of opacity determined only while the unit is in operation divided by the number of such measured non-overlappling one-hour averages. Start-up, shut-down, and non-operating time shall not be included in the annual average opacity calculation, but malfunction time shall be included. The hourly opacity values shall be determined using the PM CEMS hourly average output values as follows:

$$\text{Opacity, average for each hour} = \frac{(\text{Actual PM CEMS Output, average for each hour})(\text{Z, Opacity})}{(\text{Y, mg/m}^3)}$$

where: Y = The average PM CEMS output value (mg/m^3) established during the initial PM CEMS PS-11 certification procedure at or near, but no greater than, the AAO limit. A concurrent Method 9 test shall be conducted during the PM CEMS measurements to determine opacity. At least 60 minutes of PM CEMS and Method 9 data shall be averaged.

Z = The average concurrent Method 9 opacity readings obtained during the initial PM CEMS PS-11 certification procedure corresponding to the PM CEMS measurements for Y above.

c. For periods of less than 365 days of operation, the AAO shall be calculated as follows:

$$\text{AAO} = \frac{\sum_{i=1}^{Z}(\text{6 minute COMS block i}) + \left(\sum_{j=1}^{Y}(\text{1 hour PM CEMS block j})(\text{10 six-minute blocks / 1 hour block})\right)}{Z + 10Y}$$

where: Z = number of six-minute COM blocks of data within 365 day look-back period.
Y = number of one-hour PM CEMS blocks of data within 365 day look-back period.

Recordkeeping/Reporting [15A NCAC 2D .0536]

d. The Permittee shall submit a report showing the calculated annual average opacity of each unit and the annual average opacity limit for each day during the reporting period no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. All instances of deviations from the requirements of this permit must be clearly identified.

7. 15A NCAC 2D .0606: SOURCES COVERED BY APPENDIX P OF 40 CFR PART 51 (CONTINUOUS OPACITY MONITORING AND EXCESS EMISSIONS)

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

a. The Permittee shall use a PM CEMS as described in Section 2.1.A.5.e to monitor and record PM emissions.

The quarterly excess emissions (EE) reports shall be used as an indication of good operation and

maintenance of the electrostatic precipitators. These sources shall be deemed to be properly operated and maintained if the percentage of time the PM emissions, calculated on a one-hour average, greater than the concentration that corresponds to 0.03 pounds per million Btu heat input (21.6 mg/m^3) do not exceed 3.0 percent of the total operating time for any given calendar quarter, adjusted for monitor downtime (MD) as calculated below, except that Total Excess Emission Time contains all one-hour periods greater than the concentration that corresponds to 0.03 pounds per million Btu heat input. In addition, these sources shall be deemed to be properly operated and maintained if the %MD does not exceed 25 percent (10 percent beginning on January 1, 2012) for any given calendar quarter as calculated below. However, if %MD is less than 25 percent (10 percent beginning on January 1, 2012) but greater than 2 percent, the Permittee shall provide a full explanation to DAQ in the quarterly report including actions taken to reduce monitor downtime below 2%.

Calculations for %EE and %MD

Percent Excess Opacity Emission (%EE) Calculation:

$$\%EE = \frac{\text{Total Excess Emission Time}^{*}}{\text{Total Source Operating Time}^{***} - \text{Monitor Downtime}} \text{x} 100$$

Percent Monitor Downtime (%MD) Calculation for COMS:

$$\%MD = \frac{\text{Total Monitor Downtime}^{**}}{\text{Total Source Operating Time}^{***}} \text{x} 100$$

* Total Excess Emission Time contains any 6-minute period greater than 40% opacity including startup, shutdown, and malfunction.

** Total Monitor Downtime includes Quality Assurance (QA) activities unless exempted by regulation or defined in an agency approved QA Manual. The amount of exempt QA Time will be reported in the quarterly report as such.

*** If a source operates less than 2200 hours during any quarter, the source may calculate the %EE and/or %MD using all operating data for the current quarter and the preceding quarters until 2200 hours of data are obtained. [N.C.G.S. 143-215.110]

b. The Permittee shall use a continuous emissions monitoring system (CEMS) to monitor and record **sulfur dioxide emissions**. The quarterly excess emissions (EE) reports required under Appendix P of 40 CFR Part 51 shall be used as an indication of good operation and maintenance of the flue gas desulfurization scrubbers. These sources shall be deemed to be properly operated and maintained if sulfur dioxide emissions do not exceed 0.547 pounds per million Btu calculated on a 24-hour basis. Compliance with the sulfur dioxide emission standard is determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values are summed, and the sum is divided by 24. A minimum of four data points, equally spaced, is required to determine a valid hour value unless the continuous emission monitoring system is installed to meet the provisions of 40 CFR Part 75. If a continuous emission monitoring system is installed to meet the provisions of 40 CFR Part 75, the minimum number of data points are determined by 40 CFR Part 75.

Reporting [15A NCAC 2Q .0508(f)]

c. The Permittee shall submit the excess emissions and monitor downtime reports as required under Appendix P of 40 CFR Part 51 no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September as follows:

i. Excess PM emissions are defined as any one-hour average greater than the concentration that corresponds to 0.03 pounds per million Btu heat input (21.6 mg/m^3).

ii. Excess sulfur dioxide emissions are defined as greater than 0.547 pounds per million Btu calculated on a 24-hour block average basis. Reporting shall be in accordance with Paragraphs 4 and 5.1 of Appendix P of 40 CFR Part 51.

iii. All instances of deviations from the requirements of this permit must be clearly identified.

State-only Requirement

8. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS for SECTION 15A NCAC 2Q .0700: TOXIC AIR POLLUTANTS PROCEDURES

a. VENDOR SUPPLIED RECYCLED NO. 2 FUEL OIL REQUIREMENTS - In accordance with Rule 2Q .0317, the Permittee is avoiding the applicability of Rule 2Q .0700 by using recycled fuels which are equivalent to their virgin counterparts. The Permittee is allowed to use the recycled fuel oil(s) supplied by a DAQ-approved vendor in Units 1, 2, and 3 as follows: [15A NCAC 2Q .0702]

The recycled fuel oil(s) shall be considered equivalent to unadulterated fossil fuel by meeting the following criteria:

Constituent/Property	Allowable Level
Arsenic	1 ppm maximum
Cadmium	2 ppm maximum
Chromium	5 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash Point	100 ºF minimum
Sulfur	0.5 % maximum (by weight)
Ash	1.0 % maximum

Testing [15A NCAC 2D .2601]

b. The DAQ reserves the right to require additional testing and/or monitoring of the recycled fuel oil(s) on an annual basis or without notice.

Monitoring/Recordkeeping [15A NCAC 2D .0605]

c. The Permittee is responsible for ensuring that the recycled fuel oil(s), as received at the site, meet(s) the approved criteria for unadulterated fuel. The Permittee is held responsible for any discrepancies discovered by DAQ as a result of any sampling and analysis of the fuel oil(s).

d. The Permittee shall maintain at the facility for a minimum of three years, and shall make available to representatives of the DAQ upon request, accurate records of the following:
   i. The actual amount of recycled fuel oil(s) delivered to, and combusted at the facility on an annual basis.
   ii. Each load of recycled fuel oil received shall include the following:
      A. A delivery manifest document clearly showing the shipment content and amount, its place and date of loading, and place and date of destination;
      B. A batch specific analytical report that contains an analysis for all constituents/properties listed above. Analytical results of the samples representative of the recycled oil shipment from the vendor shall be no more than one year old when received;
      C. Batch signature information consisting of the following: a batch number, tank identification with batch volume of recycled oil, date and time the batch completed treatment, and volume(s) delivered; and
      D. A certification indicating that the recycled fuel oil does not contain detectable PCBs (< 2 ppm).

Reporting [15A NCAC 2D .0605]

e. Within 30 days after any calendar year in which the Permittee purchases recycled fuel oil(s) or burns recycled fuel oil(s) in Units 1, 2, and 3, the Permittee shall submit in writing to the Regional Supervisor, DAQ, the following:
   i. a summary of the results of the analytical testing for the previous 12 months.

ii. the total gallons of recycled No. 2 fuel oil from each approved vendor combusted at the facility for the previous 12 months.

State-only Requirement

9. 15A NCAC 2Q .0700: TOXIC AIR POLLUTANT PROCEDURES

a. The Permittee, subject to the conditions and stipulations stated herein, is allowed to burn the following as supplemental fuels in the Unit 2 Boiler, Unit 3A Boiler, and Unit 3B Boiler:
   i. oils, either petroleum-derived or synthetic, used as a lubricant, hydraulic fluid, metal working fluid and insulating fluid or coolant,
   ii. solvents, including acetone, methanol, methyl ethyl ketone, toluene, varsol, xylene, and waste solvent mixtures containing less than 10 percent (by volume) of any non-halogenated solvent not listed above as referenced by 40 CFR 261.31, and
   iii. waste ethylene glycol solution antifreeze.

b. The burning of any of the above materials as supplemental fuel is limited to the following conditions and stipulations:
   i. only those supplemental fuels generated on site may be burned,
   ii. total halogen content shall not exceed 1,000 micrograms per gram (parts per million),
   iii. total lead content shall not exceed 250 micrograms per gram (parts per million),
   iv. with the exception of PCB-contaminated mineral oil dielectric fluid, total PCB content of any insulating fluid or coolant shall not exceed 49 parts per million,
   v. supplemental fuels shall not be burned during periods of start-up, shutdown, or malfunctions, and
   vi. total supplemental fuel feed rate shall not exceed 300 gallons per hour, and 30,000 gallons per calendar year.
   vii. A daily record of the amount of supplemental fuels burned in the boilers shall be kept maintained on file and open for review by DAQ personnel upon request.
   viii. Chemical analysis conducted on supplemental fuels burned at this facility shall be maintained on file and open for review by DAQ personnel upon request.

c. The Permittee, subject to the conditions and stipulations stated herein, is allowed to burn waste ammonia/citric acid boiler cleaning solution in the Unit 1, 2, 3A, and 3B boilers. The waste ammonia/citric acid boiler cleaning solution shall be limited to the following maximum injection rates per unit:

ID No.	Maximum Injection Rate
ES-Unit 1	200 gallons per minute
ES-Unit 2	465 gallons per minute
ES-Unit 3A	258 gallons per minute
ES-Unit 3B	258 gallons per minute

The burning of waste ammonia/citric acid is limited to the following conditions and stipulations:
   i. The total amount of waste ammonia/citric acid cleaning solution injected in each boiler must be recorded on a daily basis and the record kept on file for a minimum of two years.
   ii. The Permittee shall notify the DAQ, Raleigh Regional Office, at least five days prior to waste boiler cleaning solution burning.

STATE-ONLY REQUIREMENT:

10. 15A NCAC 2D .2500: MERCURY RULES FOR ELECTRIC GENERATORS

a. The Permittee shall comply with all applicable requirements of 15A NCAC 2D .2511(a) through (f) "Mercury Emission Limits".

11. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY
(40 CFR Part 63 Subpart UUUUU—National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units)

a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements in accordance with Environmental Management Commission

Standard 15A NCAC 2D .1111 “Maximum Achievable Control Technology” (MACT) as promulgated in 40 CFR Part 63, Subpart UUUUU.

B. Two coal/No. 2 fuel oil/recycled No. 2 fuel oil-fired electric utility boilers equipped with low-NO_X burners and $Mg(OH)_2$ fuel additive (ID Nos. ES-Unit 4A and ES-Unit 4B) and associated selective catalytic reduction systems (ID Nos. CD-SCR4a and CD-SCR4b) installed in series with eight electrostatic precipitators (ID Nos. CD-ESP4a through CD-ESP4h), a wet scrubber (ID No. CD-FGD4), and sorbent injection system (ID No. CD-INJ-Sorb4)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
sulfur dioxide	varies - see Section 2.1 B.2.b	15A NCAC 2D .0524 (40 CFR Part 60 Subpart D)
	0.547 pounds per million Btu heat input	15A NCAC 2D .0501(c)
	Phase II Acid Rain Permit Requirements (see Section 2.4)	15A NCAC 2Q .0402 (40 CFR Part 72)
	(Federally Enforceable Only) Cross State Air Pollution Rule Requirements	40 CFR Part 97, Subpart CCCCC
nitrogen oxides	varies - see Section 2.1 B.2.b	15A NCAC 2D .0524 (40 CFR Part 60 Subpart D)
	Phase II Acid Rain Permit Requirements (see Section 2.4)	15A NCAC 2Q .0402 (40 CFR Part 72)
	(Federally Enforceable Only) Cross State Air Pollution Rule Requirements	40 CFR Part 97, Subparts AAAAA and BBBBB
particulate matter	0.10 pound per million Btu heat input	15A NCAC 2D .0524 (40 CFR Part 60 Subpart D)
visible emissions	20 percent opacity (except during periods of startup, shutdown and malfunction) except for one six-minute period per hour of not more than 27 percent opacity	15A NCAC 2D .0524 (40 CFR Part 60 Subpart D)
toxic air pollutants	See Section 2.2 A.1. State-only requirement	15A NCAC 2D .1100
toxic air pollutants	as defined in specific conditions State-only requirement	15A NCAC 2Q .0700
Mercury	See Section 2.1.B.5	15A NCAC 2D .2500
Hazardous Air Pollutants	See Section 2.1.B.6	15A NCAC 2D .1111 **MACT** (40 CFR 63, Subpart UUUUU)

1. 15A NCAC 2D .0524: NEW SOURCE PER FORMANCE STANDARDS (40 CFR PART 60 SUBPART D)

a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements in accordance with 15A NCAC 2D .0524, "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60, Subpart D, including Subpart A "General Provisions."[15A NCAC 2D .0524]

b. The following emission limits shall not be exceeded [15A NCAC 2D .0524]:

POLLUTANT	EMISSION LIMIT (pounds per million Btu)
sulfur dioxide	$\frac{y(0.80) + z(1.2)}{y + z}$
nitrogen oxides (expressed as NO_2)	$\frac{y(0.30) + z(0.70)}{y + z}$

POLLUTANT	EMISSION LIMIT (pounds per million Btu)
particulates	0.10
opacity	20 percent opacity (except during periods of startup, shutdown and malfunction) except for one six-minute period per hour of not more than 27 percent opacity

y = percentage of total heat input derived from liquid fossil fuel
z = percentage of total heat input derived from solid fossil fuel

c. Any use of the electrostatic precipitator high voltage control Energy Management System (EMS) feature requires a revision to this permit.

Testing [15A NCAC 2D .2601]

d. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limits given in Section 2.1.B.1.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

e. A stack test shall be conducted for particulate matter in accordance with Method 5B of Appendix A of 40 CFR Part 60 once per calendar year. In the event that a boiler exceeds 80 percent of its particulate emission limit during the stack test, the Permittee shall schedule and conduct another stack test within 6 months. Upon demonstration that the source is operating under 80 percent of its particulate limit, as shown by three consecutive semiannual stack tests, the source may resume annual stack tests. If the result of any stack test is greater than the limit given in Section 2.1.B.1.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

f. i. The Permittee shall install, maintain, and operate a PM CEMS.
ii. The Permittee shall install, maintain, and operate a CEMS for measuring sulfur dioxide emissions, nitrogen oxide emissions, and either oxygen or carbon dioxide, as per the requirements of 40 CFR Part 75.

g. Compliance with SO_2 and NO_x emission limits of Section 2.1.B.1.b above, shall be determined by averaging hourly continuous emission monitoring system values over any three-hour (rolling) period. The three-hour average shall be the arithmetic average of three contiguous one-hour periods of sulfur dioxide or nitrogen oxides as measured by the continuous emission monitoring system. Missing data shall not be filled nor shall the data be bias adjusted in accordance with 40 CFR Part 75. The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75. If any three-hour average exceeds emission limits of Section 2.1.B.2.b above (except during periods of startup, shutdown and malfunction) or records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524. [40 CFR 60.8 and 60.45]

h. Compliance with the opacity limit in Section 2.1.B.1.b above shall be determined by conducting Method 9 performance tests in accordance with §60.45(b)(7) according to the applicable schedule in §60.45(b)(7)(i).

i. Compliance with the particulate limit in Section 2.1.B.1.b shall be determined using the PM CEMS.
i. Each PM CEMS shall be installed, evaluated, operated, and maintained according to the requirements in §60.49Da(v).
ii. When demonstrating compliance, the PM emission rate shall be determined based on a 24-hour daily (block) average of the hourly arithmetic average emissions concentrations using the CEMS outlet data each boiler operating day, except for data obtained during startup, shutdown, and malfunction. Averages are only calculated for boiler operating days that have valid data for at least 18 hours of unit operation during which the standard applies. Instead, all of the valid hourly emission rates of the operating day(s) not meeting the minimum 18 hours valid data daily average requirement are averaged with all of the valid hourly emission rates of the next boiler operating day with 18 hours or more of valid PM CEMS data to determine compliance. The 24-hour block arithmetic average emission concentration shall be calculated using EPA Reference Method 19 of Appendix A of 40 CFR Part 60, section 4.1.
iii. At a minimum, valid PM CEMS hourly averages shall be obtained for 75 percent of all operating hours on a 30-day rolling average basis. Beginning on January 1, 2012, valid PM CEMS hourly averages shall be obtained for 90 percent of all operating hours on a 30-day rolling average basis. At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
iv. The 1-hour arithmetic averages of PM CEMS data shall be expressed in pounds per million Btu and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations.

The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of Subpart A of 40 CFR Part 60.

v. All valid PM CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph iii above are not met.

vi. When PM emissions data are not obtained because of PM CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the DAQ or EPA Reference Method 19 of Appendix A of 40 CFR Part 60 to provide, as necessary, valid emissions data for a minimum of 90 percent (only 75 percent is required prior to January 1, 2012) of all operating hours per 30-day rolling average.

vii. Records shall be maintained according to the requirements specified in §60.45(h) for all Method 9 performance tests required in Section 2.1.B.1.h above.

If the results of the 24-hour daily arithmetic average PM CEMS concentration exceeds the limit in Section 2.1.B.1.b or any of the above requirements are not met, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

Reporting [15A NCAC 2Q .0508(f)]

j. The Permittee shall submit excess emissions and monitoring system performance reports for sulfur dioxide, nitrogen oxide, opacity and PM. The reports shall be postmarked by the 30th day following the end of each calendar year quarter and shall include, at a minimum, the information required in 40 CFR 60.7(c), as follows:

i. Sulfur Dioxide - Report all three-hour periods of **excess emissions** (pounds per million Btu) during the reporting period including periods exempted during startup, shutdown and malfunction. Monitor availability values (as calculated for 40 CFR Part 75) for the last hour of the reporting period shall be included.

ii. Nitrogen Oxides - Report all three-hour periods of **excess emissions** (pounds per million Btu) during the reporting period including periods exempted during startup, shutdown and malfunction. Monitor availability values (as calculated for 40 CFR Part 75) for the last hour of the reporting period shall be included.

iii. Opacity and PM –

(A) Report all 24-hour daily (block) average **excess emissions** (pounds per million Btu) using the PM CEMS outlet data, including periods exempted during startup, shutdown, and malfunction;

(B) Within 15 days of a written request, report **all** PM CEMS hourly averages (in written or electronic form) to show, at a minimum, that valid PM CEMS hourly averages have been obtained for 90 percent (only 75 percent is required prior to January 1, 2012) of all operating hours on a 30-day rolling average basis; and

(C) Report results of all Method 9 performance tests required in Section 2.1.B.1.h above.

k. The results of any stack test shall be reported within 30 days, and the test report shall be submitted within 60 days after the test.

l. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 2D .0501(c): COMPLIANCE WITH EMISSION CONTROL STANDARDS

a. In addition to any control or manner of operation necessary to meet emission standards in 15A NCAC 2D .0500, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards of 15A NCAC 2D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in 15A NCAC 2D .0500 are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls. [15A NCAC 2D .0501(c)]

b. Emissions of sulfur dioxide from these sources shall not exceed **0.547 pounds per million Btu heat input** in accordance with the modeling analysis received May 16, 2007. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0501(c)]

Testing [15A NCAC 2D .2601]

c. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limits given in Section 2.1 B.2.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0501(c).

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f) and 2D .0608]

d. The Permittee shall assure compliance with 15A NCAC 2D .0501(c) by determining sulfur dioxide emissions in pounds per million Btu using continuous emissions monitoring (CEM) systems meeting the requirements of 40 CFR Part 75 except that unbiased values may be used (missing data shall be filled in accordance with 40 CFR Part 75). Compliance with sulfur dioxide emission standards shall be determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values (missing data shall be filled in accordance with 40 CFR Part 75) shall be summed, and the sum shall be divided by 24. The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75. If any 24-hour block average exceeds the limits given in Section 2.1 B.2.b above or records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0501(c).

Reporting [15A NCAC 2Q .0508(f)]

e. The Permittee shall submit the continuous emissions monitoring data showing the 24-hour daily block values in pounds per million Btu for each 24-hour daily block averaging period during the reporting period no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. All instances of deviations from the requirements of this permit must be clearly identified.

f. CEMs Monitor Availability - The Permittee shall submit sulfur dioxide and nitrogen oxides CEM systems monitor downtime reports, including monitor availability values (as calculated for 40 CFR Part 75) for the last hour of the reporting period, no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September.

State-only Requirement

3. 15A NCAC 2Q. 0317: AVOIDANCE CONDITIONS for SECTION 15A NCAC 2Q .0700: TOXIC AIR POLLUTANTS PROCEDURES

a. VENDOR SUPPLIED RECYCLED NO. 2 FUEL OIL REQUIREMENTS - In accordance with Rule 2Q .0317, the Permittee is avoiding the applicability of Rule 2Q .0700 by using recycled fuels which are equivalent to their virgin counterparts. The Permittee is allowed to use the recycled fuel oil(s) supplied by a DAQ-approved vendor in Unit 4 as follows: [15A NCAC 2Q .0702]

The recycled fuel oil(s) shall be considered equivalent to unadulterated fossil fuel by meeting the following criteria:

Constituent/Property	Allowable Level
Arsenic	1 ppm maximum
Cadmium	2 ppm maximum
Chromium	5 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash Point	100 ºF minimum
Sulfur	0.5 % maximum (by weight)
Ash	1.0 % maximum

Testing [15A NCAC 2D .2601]

b. The DAQ reserves the right to require additional testing and/or monitoring of the recycled fuel oil(s) on an

annual basis or without notice.

Monitoring/Recordkeeping [15A NCAC 2D .0605]

c. The Permittee is responsible for ensuring that the recycled fuel oil(s), as received at the site, meet(s) the approved criteria for unadulterated fuel. The Permittee is held responsible for any discrepancies discovered by DAQ as a result of any sampling and analysis of the fuel oil(s).

d. The Permittee shall maintain at the facility for a minimum of three years, and shall make available to representatives of the DAQ upon request, accurate records of the following:
   i. The actual amount of recycled fuel oil(s) delivered to, and combusted at the facility on an annual basis.
   ii. Each load of recycled fuel oil received shall include the following:
      A. A delivery manifest document clearly showing the shipment content and amount, its place and date of loading, and place and date of destination;
      B. A batch specific analytical report that contains an analysis for all constituents/properties listed above. Analytical results of the samples representative of the recycled oil shipment from the vendor shall be no more than one year old when received;
      C. Batch signature information consisting of the following: a batch number, tank identification with batch volume of recycled oil, date and time the batch completed treatment, and volume(s) delivered; and
      D. A certification indicating that the recycled fuel oil does not contain detectable PCBs (< 2 ppm).

Reporting [15A NCAC 2D .0605]

e. Within 30 days after any calendar year in which the Permittee purchases recycled fuel oil(s) or burns recycled fuel oil(s) in Unit 4, the Permittee shall submit in writing to the Regional Supervisor, DAQ, the following:
   i. a summary of the results of the analytical testing for the previous 12 months.
   ii. the total gallons of recycled No. 2 fuel oil from each approved vendor combusted at the facility for the previous 12 months.

State-only Requirement

4. 15A NCAC 2Q .0700: TOXIC AIR POLLUTANT PROCEDURES

a. The Permittee is allowed to burn waste ammonia/citric acid boiler cleaning solution in the Unit 4A and 4B Boilers. The waste ammonia/citric acid boiler cleaning solution shall be limited to the following maximum injection rates per unit:

ID No.	Maximum Injection Rate
ES-Unit 4A	258 gallons per minute
ES-Unit 4B	258 gallons per minute

The burning of waste ammonia/citric acid is limited to the following conditions and stipulations:

Monitoring/Recordkeeping

b. The total amount of waste ammonia/citric acid cleaning solution injected in each boiler must be recorded on a daily basis and the record kept on file for a minimum of two years.

c. The Permittee shall notify the DAQ, Raleigh Regional Office, at least five days prior to waste boiler cleaning solution burning.

STATE-ONLY REQUIREMENT:

5. 15A NCAC 2D .2500: MERCURY RULES FOR ELECTRIC GENERATORS

a. The Permittee shall comply with all applicable requirements of 15A NCAC 2D .2511(a) through (f) "Mercury Emission Limits".

6. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (40 CFR Part 63 Subpart UUUUU—National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units)

a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements in accordance with Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR Part 63, Subpart UUUUU.

C. No. 2 fuel oil fired simple-cycle combustion turbine (265 million Btu per hour heat input rate, ID No. ES-IC Turbine)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
visible emissions	40 percent opacity (except during startups, shutdowns, and malfunctions when averaged over a six-minute period except that six-minute periods averaging not more than 90 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period.	15A NCAC 2D .0521

1. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. Emissions of sulfur dioxide from this source shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 C. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of No. 2 fuel oil in this source.

2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources shall not be more than 40 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 90 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period.

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ.

Monitoring [15A NCAC 2Q .0508(f)]

c. To assure compliance, the Permittee shall perform a Method 9 test for 1 hour using a preapproved protocol to be submitted in accordance with 15A NCAC 2D .2601 and General Condition JJ before the source operates more than 1100 hours using No. 2 fuel oil. This monitoring protocol shall be repeated before each subsequent 1100 hours of operation using No. 2 fuel oil from the last test. If the results of this test are above the limit given in Section 2.1 C.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .0508(f)]

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each Method 9 observation; and
   iii. the results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

e. The Permittee shall submit the results of the Method 9 test within 30 days of completion of the test. All instances of deviations from the requirements of this permit must be clearly identified.

D.

- **Unit No. 1 dry flyash conveying system surge/transfer tank (ID No. ES-Surge Bin 1), and associated bagfilters (ID Nos. CD-BF11, CD-BF12, CD-BF13, and CD-BF14) and cyclones (ID Nos. CD-1-1, CD-1-2 and CD-1-3)**

- **Unit No. 3 dry flyash conveying system surge/transfer tank (ID No. ES-Surge Bin 3), and associated bagfilters (ID Nos. CD-BF15, CD-BF16, CD-BF17, and CD-BF18) and cyclones (ID Nos. CD-3-1, CD-3-2 and CD-3-3)**

- **Unit No. 4 dry flyash conveying system surge/transfer tank (ID No. ES-Surge Bin 4), and associated bagfilters (ID Nos. CD-BF19, CD-BF20, CD-BF21, and CD-BF22) and cyclones (ID Nos. CD-4-1, CD-4-2 and CD-4-3)**

- **Three flyash conveying system storage and handling silos (ID Nos. ES-FA Silo 1, ES-FA Silo 2, and ES-FA Silo 4), and associated bagfilters (ID Nos. CD-BF1, CD-BF2, CD-BF3, CD-BF4, CD-BF7, and CD-BF8)**

- **electrostatic flyash separation system consisting of one mineral-rich product load-out silo (ID No. ES-S-3L) and two electrostatic flyash separation and conveying systems (ID Nos. ES-EFSS1 and ES-EFSS2), and associated bagfilters (ID Nos. CD-BF23 and CD-BF24)**

- **stationary vacuum system for housekeeping (ID No. ES-SVS1) and integral bagfilter (ID No. CD-BF26)**

- **flyash conveying system storage and handling silo (ID No. ES-FA Silo 3) and one mineral-rich flyash loadout system (ID No. ES-S-3L2), and associated bagfilters (ID Nos. CD-BF5 and CD-BF6)**

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons/hr, or $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons/hr where: E = allowable emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period	15A NCAC 2D .0521

1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

$E = 4.10 \times P^{0.67}$ for **P** $\leq$ 30 tons/hr, or
$E = 55.0 \times P^{0.11} - 40$ for **P** > 30 tons/hr

where: E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 D. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

c. Particulate matter emissions from the Unit No. 1 dry flyash conveying system surge/transfer tank (ID No. ES-Surge Bin 1), Unit No. 3 dry flyash conveying system surge/transfer tank (ID No. ES-Surge Bin 3), Unit No. 4 dry flyash conveying system surge/transfer tank (ID No. ES-Surge Bin 4), three flyash conveying system storage and handling silos (ID Nos. ES-FA Silo 1, ES-FA Silo 2, and ES-FA Silo 4), one electrostatic flyash separation system consisting of one mineral-rich product load-out silo (ID No.ES-S-3L) and two electrostatic flyash separation and conveying systems (ID No. ES-EFSS1 and ES-EFSS2), one stationary vacuum system for housekeeping (ID Nos. ES-SVS1), one flyash conveying system storage and handling silo (ID No. ES-FA Silo 3), and one mineral-rich flyash loadout system (ID No. ES-S-3L2) shall be controlled by the bagfilters (ID Nos. CD-BF1 through CD-BF8, CD-BF11 through CD-BF24, and CD-BF26). To ensure that optimum control efficiency is maintained, the Permittee shall perform inspections and maintenance as recommended by the manufacturer implemented in the plant's Work Management System. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:

i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
ii. an annual (for each 12 month period following the initial inspection) internal inspection of the bagfilter's structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and bagfilters are not inspected and maintained.

d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:

i. the date and time of each recorded action;
ii. the results of each inspection;
iii. the results of any maintenance performed on the bagfilters; and
iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

e. The Permittee shall submit the results of any maintenance performed on the bagfilters within 30 days of a written request by the DAQ.

f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources shall not be more than 20 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ.

Monitoring [15A NCAC 2Q .0508(f)]

c. To assure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (c) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2601 for 30 minutes is below the limit given in Section 2.1 D.2.a. above. If the demonstration in (c) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .0508(f)]

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

E.

- **No. 1 flyash conveying system storage and handling silo, and load-out stations (ID No. ES-S-1) and associated wet flyash conditioners (ID Nos. CD-WS1 and CD-WS2)**

- **No. 4 flyash conveying system storage and handling silo, and load-out stations (ID No. ES-S-4) and associated wet flyash conditioners (ID Nos. CD-WS3, CD-WS4 and CD-WS5)**

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons/hr, or $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons/hr where: E = allowable emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period	15A NCAC 2D .0521

1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

$E = 4.10 \times P^{0.67}$ for **P** $\leq$ 30 tons/hr, or
$E = 55.0 \times P^{0.11} - 40$ for **P** > 30 tons/hr

where: E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

c. No monitoring/recordkeeping/reporting is required for emissions from these sources.

2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources shall not be more than 20 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ.

Monitoring [15A NCAC 2Q .0508(f)]

c. To assure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. If visible emissions from this source are observed to be above

normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 2D .2601 for 30 minutes is below the limit given in Section 2.1 E.2.a above. If the demonstration in (c) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .0508(f)]

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

F.

- **Six coal storage silos (ID Nos. ES-Coal Silo 1 through ES-Coal Silo 6)**
- **Four coal conveyors (ID Nos. ES-37A, ES-37B, ES-39A, and ES-39B)**

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons/hr, or $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons/hr where: E = allowable emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity except during periods of startup, shutdown and malfunction	15A NCAC 2D .0524 (40 CFR Part 60 Subpart Y)

1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

$E = 4.10 \times P^{0.67}$ for **P** $\leq$ 30 tons/hr, or
$E = 55.0 \times P^{0.11} - 40$ for **P** > 30 tons/hr

where: E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

c. The Permittee shall maintain production records and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the production records are not maintained.

2. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS (40 CFR PART 60 SUBPART Y)

a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements in accordance with 15A NCAC 2D .0524, "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60, Subpart Y, including Subpart A "General Provisions."[15A NCAC 2D .0524]

b. On or after the date on which the performance test required to be conducted under 40 CFR 60.8 is completed, visible emissions shall not be 20 percent opacity or greater except during periods of startup, shutdown and malfunction.

Testing [15A NCAC 2D .2601]

c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F. 2. b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

Monitoring [15A NCAC 2Q .0508(f)]

d. To assure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. If visible emissions from this source are observed to be above

normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 2D .0524 or (c) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2601 for 30 minutes is below the limit given in Section 2.1 F. 2. b. above. If the demonstration in (c) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0524.

Recordkeeping [15A NCAC 2Q .0508(f)]

e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

f. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

G. coal unloading hopper (ID No. ES-Coal Hopper) with wet suppression and two coal conveyors (ID Nos. ES-Coal Convey 1 and ES-Coal Convey 2)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
visible emissions	20 percent opacity	15A NCAC 2D .0524 (40 CFR Part 60 Subpart Y)

1. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS (40 CFR PART 60 SUBPART Y)

a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements in accordance with 15A NCAC 2D .0524, "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60, Subpart Y, including Subpart A "General Provisions."[15A NCAC 2D .0524]

b. On or after the date on which the performance test required to be conducted under 40 CFR 60.8 is completed, visible emissions shall not be **20 percent opacity** or greater.

c. No monitoring/recordkeeping/reporting is required for emissions from these sources.

H. limestone rail unloading station (ID No. LS Rail) with wet suppression

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	ambient air quality standards	15A NCAC 2D .0510
visible emissions	20 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period	15A NCAC 2D .0521

1. 15A NCAC 2D .0510: PARTICULATES FROM SAND, GRAVEL, OR CRUSHED STONE OPERATIONS

a. The Permittee shall not cause, allow, or permit any material to be produced, handled, transported or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne to prevent exceeding the ambient air quality standards beyond the property line for particulate matter, both PM10 and total suspended particulates.

b. Fugitive non-process dust emissions shall be controlled by 15A NCAC 2D .0540.

c. The Permittee shall control emissions from conveyors, screens, and transfer points, such that the applicable opacity standards in Sections 2.1 H.2.a below are not exceeded.

Testing [15A NCAC 2D .2601]

d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 H.2 below, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0510.

Monitoring [15A NCAC 2Q .0508(f)]

e. The monitoring required in Section 2.1 H.2.c below shall satisfy this requirement.

2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources shall not be more than 20 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ.

Monitoring [15A NCAC 2Q .0508(f)]

c. To assure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. The Permittee shall establish "normal" for the source in the first 30 days following start-up of the sources. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 2D .2601 for 30 minutes is below the limit given in Section 2.1 H.2.a above. If the demonstration in (c) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .0508(f)]

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be

in noncompliance along with any corrective actions taken to reduce visible emissions; and

iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

I. Limestone Handling Equipment with Fugitive Emissions:

Two limestone unloading hoppers (ID Nos. ES-LS Unload A and ES-LS Unload B), three limestone belt feeders (ID Nos. ES-LS Feeder 1, ES-LS Feeder 3A, and ES-LS Feeder 3B), two limestone reclaim hoppers (ID Nos. ES-LS Reclaim A and ES-LS Reclaim B), three limestone conveyors (ID Nos. ES-LS Convey 2, ES-LS Convey 4A [tail-end transfer only], and ES-LS Convey 4B [tail-end transfer only]), and three wet limestone grinders (ID Nos. ES-LS Grinder 1, ES-LS Grinder 2, and ES-LS Grinder 3)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	ambient air quality standards	15A NCAC 2D .0510
visible emissions	10 percent opacity	15A NCAC 2D .0524 (40 CFR Part 60 Subpart OOO)

1. 15A NCAC 2D .0510: PARTICULATES FROM SAND, GRAVEL, OR CRUSHED STONE OPERATIONS

a. The Permittee shall not cause, allow, or permit any material to be produced, handled, transported or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne to prevent exceeding the ambient air quality standards beyond the property line for particulate matter, both PM10 and total suspended particulates.

b. Fugitive non-process dust emissions shall be controlled by 15A NCAC 2D .0540.

c. The Permittee shall control emissions from conveyors, screens, and transfer points, such that the applicable opacity standard in Section 2.1 I.2.b below is not exceeded.

Testing [15A NCAC 2D .2601]

d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 I.2.b below, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0510.

Monitoring [15A NCAC 2Q .0508(f)]

e. The monitoring required in Section 2.1 I.2.d below shall satisfy this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 2D .0510 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 2D .2601 for 30 minutes is below the limit given in Section 2.1 I.2.b below. If the demonstration in (b) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0510.

2. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS (40 CFR PART 60 SUBPART OOO)

a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart OOO, including Subpart A "General Provisions."[15A NCAC 2D .0524]

Emission Limitations [15A NCAC 2D .0524]

b. Fugitive visible emissions from these sources shall not be more than 10 percent opacity.

Testing [15A NCAC 2D .2601]

c. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 I.2.b above, the

Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

Monitoring [15A NCAC 2Q .0508(f)]

d. To assure compliance, once a month the Permittee shall observe the emission sources for any visible emissions above normal. The Permittee shall establish "normal" for the sources in the first 30 days following completion of the initial performance test. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 2D .0524 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 2D .2601 for 30 minutes is below the limit given in Section 2.1 I.2.b above. If the demonstration in (b) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0524.

Recordkeeping [15A NCAC 2Q .0508(f)]

e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

f. The Permittee shall submit a summary report of the observations by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

J. Limestone Handling Equipment with Stack Emissions:

Five limestone conveyors (ID Nos. ES-LS Convey 4A [head-end transfer only], ES-LS Convey 4B [head-end transfer only], ES-LS Convey 5, ES-LS Convey 6, and ES-LS Convey 7), and three limestone silos (ID Nos. ES-LS Silo A, ES-LS Silo B, and ES-LS Silo C) with associated bagfilter (ID No. CD-LB-BF-1), one limestone silo (ID No. ES-LS Mayo Silo) with associated bagfilter (ID No. CD-LB-BF-2), and one truck loading spout (ID No. ES-Truck Spout) with associated bagfilter (ID No. CD-LB-BF-3)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	ambient air quality standards	15A NCAC 2D .0510
	0.022 gr/dscf	15A NCAC 2D .0524 (40 CFR Part 60 Subpart OOO)
visible emissions	7 percent opacity	15A NCAC 2D .0524 (40 CFR Part 60 Subpart OOO)

1. 15A NCAC 2D .0510: PARTICULATES FROM SAND, GRAVEL, OR CRUSHED STONE OPERATIONS

a. The Permittee shall not cause, allow, or permit any material to be produced, handled, transported or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne to prevent exceeding the ambient air quality standards beyond the property line for particulate matter, both PM10 and total suspended particulates.

b. Fugitive non-process dust emissions shall be controlled by 15A NCAC 2D .0540.

c. The Permittee shall control emissions from conveyors, screens, and transfer points, such that the applicable opacity standard in Section 2.1 J.2.c below is not exceeded.

Testing [15A NCAC 2D .2601]

d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 J.2.b or c below, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0510.

Monitoring [15A NCAC 2Q .0508(f)]

e. The monitoring required in Section 2.1 J.2.e and f below shall satisfy this requirement. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0510 if the ductwork and bagfilters are not inspected and maintained. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 2D .0510 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 2D .2601 for 30 minutes is below the limit given in Section 2.1 J.2.c below. If the demonstration in (b) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0510.

2. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS (40 CFR PART 60 SUBPART OOO)

a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart OOO, including Subpart A "General Provisions."[15A NCAC 2D .0524]

Emission Limitations [15A NCAC 2D .0524]

b. Emissions of particulate matter from these sources shall not exceed 0.022 grains per standard dry cubic foot.

c. Visible emissions from these sources shall not be more than 7 percent opacity.

Testing [15A NCAC 2D .2601]

d. As required by 15A NCAC 2D .0524, the following performance tests shall be conducted, as specified in 40 CFR 60.675:

Affected Facility	Pollutant	Test Method
limestone conveyor (ID No. ES-LS Convey 7) with associated bagfilter (ID No. CD-LB-BF-1) limestone silo (ID No. ES-LS Mayo Silo) with associated bagfilter (ID No. CD-LB-BF-2) truck loading spout (ID No. ES-Truck Spout) with associated bagfilter (ID No. CD-LB-BF-3)	particulate matter	Method 5 or Method 17
	visible emissions	Method 9 and 40 CFR 60.11

i. At least 45 days prior to performing any required emissions testing, the Permittee must submit a testing protocol to the Regional Supervisor, DAQ for review and approval. All testing protocols must be approved by the DAQ prior to performing such tests.
ii. All performance tests shall be conducted in accordance with EPA Reference Methods, contained in 40 CFR 60, Appendix A.
iii. The EPA Administrator retains the exclusive right to approve equivalent and alternative test methods, continuous monitoring procedures, and reporting requirements.
iv. To afford the Regional Supervisor, DAQ, the opportunity to have an observer present, the Permittee shall provide the Regional Office in writing, at least fifteen (15) days notice of any required performance test(s).
v. Within (60) days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after the initial start-up of the affected facility, the Permittee shall conduct the required performance test(s) and submit a written report of the test(s) to the Regional Supervisor, DAQ.
vi. This permit may be revoked, with proper notice to the Permittee, or enforcement procedures initiated, if the results of the test(s) indicate that the facility does not meet applicable limitations.
vii. The source shall be responsible for ensuring, within the limits of practicality, that the equipment or process being tested is operated at or near its maximum normal production rate or at a lesser rate if specified by the Director or his delegate.
viii. All associated testing costs are the responsibility of the Permittee.

e. If additional emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limits given in Section 2.1 J.2.b or c above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

Monitoring [15A NCAC 2Q .0508(f)]

f. Particulate matter emissions from the five limestone conveyors (ID Nos. ES-LS Convey 4A [head-end transfer only], ES-LS Convey 4B [head-end transfer only], ES-LS Convey 5, ES-LS Convey 6, and ES-LS Convey 7), four limestone bins silos (ID Nos. ES-LS Silo A, ES-LS Silo B, ES-LS Silo C, and ES-LS Mayo Silo), and one truck loading spout (ID No. ES-Truck Spout) shall be controlled by the bagfilters (ID No. CD-LB-BF-1, CD-LB-BF-2, and CD-LB-BF-3). To ensure that optimum control efficiency is maintained, the Permittee shall perform inspections and maintenance as recommended by the manufacturer implemented in the plant's Work Management System. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
ii. an annual internal inspection of the bagfilter's structural integrity.
The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the ductwork and bagfilters are not inspected and maintained.

g. To assure compliance, once a month the Permittee shall observe the emission sources for any visible emissions above normal. The Permittee shall establish "normal" for the sources in the first 30 days following completion of the initial performance test. If visible emissions from this source are observed to

be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 2D .0524 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 2D .2601 for 30 minutes is below the limit given in Section 2.1 J.2.c above. If the demonstration in (b) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0524.

Recordkeeping [15A NCAC 2Q .0508(f)]

h. The results of inspection and maintenance in Section 2.1 J.2.f above shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each inspection;
   iii. the results of any maintenance performed on the bagfilters; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

i. The results of the monitoring in Section 2.1 J.2.f above shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

j. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

k. The Permittee shall submit a summary report of the observations by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

l. In addition to any other notification requirements to the Environmental Protection Agency (EPA), for the limestone conveyor (ID No. ES-LS Convey 7) with associated bagfilter (ID No. CD-LB-BF-1), limestone silo (ID No. ES-LS Mayo Silo) with associated bagfilter (ID No. CD-LB-BF-2); and truck loading spout (ID No. ES-Truck Spout) with associated bagfilter (ID No. CD-LB-BF-3), the Permittee is required to NOTIFY the Regional Supervisor, DAQ, in WRITING, of the following:
   i. the date construction (40 CFR 60.7) or reconstruction (40 CFR 60.15) of an affected facility is commenced, postmarked no later than 30 days after such date; and
   ii. the actual date of initial start-up of an affected facility, postmarked within 15 days after such date.

K. flyash-fired fluidized bed combustor (ID No. ES-CBO-FBC) with associated bagfilter (ID No. CD-CBO-FBC-BF-1)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	0.10 pounds per million Btu heat input	15A NCAC 2D .0503
sulfur dioxide nitrogen oxides particulate matter visible emissions	as defined in specific conditions	15A NCAC 2D .0524 (40 CFR Part 60 Subpart Db)
sulfur dioxide nitrogen oxides	as defined in specific conditions	15A NCAC 2Q .0317 (PSD avoidance)

1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

a. Emissions of particulate matter from the combustion of flyash, that are discharged from this source into the atmosphere shall not exceed **0.10 pound per million Btu heat input each**. [15A NCAC 2D .0503 (a)]

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 K.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

c. Particulate matter emissions from the fludized bed combustor shall be controlled by the bagfilter. To ensure that optimum control efficiency is maintained, the Permittee shall perform inspections and maintenance as recommended by the manufacturer implemented in the plant's Work Management System. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement must include the following:
   i. an annual internal inspection of the bagfilters' structural integrity; and
   ii. a monthly visual inspection of the system ductwork, and material collection unit for leaks.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503 if the ductwork and bagfilter are not inspected and maintained.

d. The results of inspection and maintenance shall be maintained in a log book (written or electronic form) on site and made available to an authorized representative upon request. The log book shall record the following:
   i. the date and time of actions recorded;
   ii. the results of each inspection;
   iii. the results of any maintenance performed on the bagfilter; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

e. The Permittee shall submit the results of any maintenance performed on the bagfilter within 30 days of a written request by the DAQ.

f. The Permittee shall submit a summary report of monitoring and recordkeeping activities by January 30 and July 30 of each calendar year for the preceding six-month period.

g. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS (40 CFR PART 60 SUBPART Db)

The Permittee shall comply with all applicable provisions, including applicable emission standards, notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 as promulgated in 40 CFR 60, Subpart Db "Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units", including Subpart A "General Provisions." [15A NCAC 2D .0524]

Reporting [15A NCAC 2Q .0508(f)]

a. In addition to any other notification requirements to the Environmental Protection Agency (EPA), the Permittee is required to NOTIFY the Regional Supervisor, DAQ, in WRITING, of the following:
   i. the date construction (40 CFR 60.7) or reconstruction (40 CFR 60.15) of an affected facility is commenced, postmarked no later than thirty (30) days after such date;
   ii. the actual date of initial start-up of an affected facility, postmarked within fifteen (15) days after such date.

3. 15A NCAC 2Q .0317: AVOIDANCE CONDITION for 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. In order to avoid applicability of 15A NCAC 2D .0530 (g) for major sources and major modifications, total emissions of nitrogen oxides discharged into the atmosphere from the boilers (Units 1 through 4) shall not exceed 21,940 tons per consecutive 12-month period and total emissions of sulfur dioxide discharged into the atmosphere from the boilers (Units 1 through 4) shall not exceed 104,288 tons per consecutive 12-month period as a result of the carbon burnout modification.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

b. The monthly emissions of nitrogen oxides and sulfur dioxide from the boilers (Units 1 through 4) shall be monitored using the existing continuous emissions monitoring (CEM) systems meeting the requirements of 40 CFR Part 75 except that unbiased values may be used (missing data shall be filled in accordance with 40 CFR Part 75). If the emissions are not monitored or emissions exceed the above limits, the Permittee shall be deemed to be in violation of 15A NCAC 2D .0530.

Reporting [15A NCAC 2Q .0508(f)]

c. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the monthly nitrogen oxides and sulfur dioxide emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months. All instances of deviations from the requirements of this permit must be clearly identified.

L.

- **CBO feedash silo (ID No. ES-CBO Silo 1*) and associated bagfilter (ID No. CD-CBO-FS-BF-1*),**

- **CBO recycle ash silo (ID No. ES-CBO Silo 2*) and associated bagfilter (ID No. CD-CBO-RS-BF-1*), and**

- **CBO product dome (ID No. ES-CBO Dome*) and associated bagfilter (ID No. CD-CBO-PD-BF-1*)**

State-only Requirement

* **NOTIFICATION REQUIREMENT** - Within 15 days after start up of the new or modified facilities, the Permittee shall provide written notice of the start up to the Regional Supervisor, DAQ.

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons/hr, or $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons/hr where: E = allowable emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period	15A NCAC 2D .0521

1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

$E = 4.10 \times P^{0.67}$ for **P** $\leq$ 30 tons/hr, or
$E = 55.0 \times P^{0.11} - 40$ for **P** > 30 tons/hr

where: E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 L.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

c. Particulate matter emissions from these sources shall be controlled by the bagfilters. To ensure that optimum control efficiency is maintained, the Permittee shall perform inspections and maintenance as recommended by the manufacturer implemented in the plant's Work Management System. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement must include the following:
   i. an annual internal inspection of the bagfilters' structural integrity; and
   ii. a monthly visual inspection of the system ductwork, and material collection unit for leaks.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and bagfilter

are not inspected and maintained.

d. The results of inspection and maintenance shall be maintained in a log book (written or electronic form) on site and made available to an authorized representative upon request. The log book shall record the following:
   i. the date and time of actions recorded;
   ii. the results of each inspection;
   iii. the results of any maintenance performed on the bagfilter; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

e. The Permittee shall submit the results of any maintenance performed on the bagfilter within 30 days of a written request by the DAQ.

f. The Permittee shall submit a summary report of monitoring and recordkeeping activities by January 30 and July 30 of each calendar year for the preceding six-month period. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources shall not be more than 20 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ.

Monitoring [15A NCAC 2Q .0508(f)]

c. To assure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. The Permittee shall establish "normal" for the source in the first 30 days following start-up of the sources. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 2D .2601 for 30 minutes is below the limit given in Section 2.1 L.2.a above. If the demonstration in (c) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .0508(f)]

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

M. One diesel fired emergency fire water pump (ID No. ES-FWP2)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
sulfur dioxide	≤ 15 ppm sulfur	15A NCAC 2D .0524 [40 CFR 60 Subpart IIII]
visible emissions	20 percent opacity except during start-up, shutdown and malfunction	15A NCAC 2D .0521
NMHC+NOx CO PM	10.5 g/kW-hr (7.8 g/HP-hr) 3.5 g/kW-hr (2.6 g/HP-hr) 0.54 g/kW-hr (0.4 g/HP-hr)	15A NCAC 2D .0524 [40 CFR 60 Subpart IIII]

1. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from this source (ID No. FWP2) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 M.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

c. No monitoring / recordkeeping / reporting is required for visible emissions from the burning of diesel fuel in this source.

2. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS [40 CFR 60 SUBPART IIII]

a. The Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, record keeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart IIII, including Subpart A "General Provisions."[15A NCAC 2D .0524]

Emission Standards

b. The Permittee shall comply with the following emission standards for stationary CI ICE of emergency fire water pump (ID No. FWP2) for model year 2008 and earlier:

NMHC and NOx (combined): 10.5 g/kW-hr (7.8 g/HP-hr)
CO: 3.5 g/kW-hr (2.6 g/HP-hr)
PM: 0.54 g/kW-hr (0.4 g/HP-hr)

[§60.4205(c)]

c. The Permittee shall use diesel fuel in the CI ICE of the emergency fire water pump (ID No. ES-FWP2) with a maximum sulfur content of 15 ppm.

[§60.4207(b), and §80.510(b)]

Testing [15A NCAC 2Q .2601]

d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 M. 2. b. above, the Permittee shall be

deemed in noncompliance with 15A NCAC 2D .0524.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

e. The Permittee shall operate and maintain the CI ICE of the emergency fire water pump (ID No. FWP2) over the entire life of the engine according to the manufacturer's written instructions or procedures, which are approved by the engine manufacturer. If the manufacturer's written instructions or procedures as approved by the engine manufacturer are not complied, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.4206]

f. The CI ICE of the emergency fire water pump (ID No. FWP2) shall be equipped with a non-resettable hour meter prior to startup. If the CI ICE of the emergency fire water pump (ID No. FWP2) is not equipped with a non-resettable hour meter prior to startup, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.4209(a)]

g. The Permittee shall operate and maintain the CI ICE of the emergency fire water pump (ID No. FWP2) in accordance with the manufacturers written instructions or procedures developed by the Permittee that are approved by the engine manufacturer. The Permittee may only change engine settings that are permitted by the manufacturer. The Permittee shall also meet the requirements of 40 CFR 89, 94 and/or 1068 as applicable. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the requirements in this Section 2.1 M.2.g. are not complied with.

[§60.4211(a)]

h. The Permittee shall purchase the CI ICE of the emergency fire water pump (ID No. FWP2) for the model year 2008 and earlier, capable of meeting the emission standards in Section 2.1 M.2.b. above. The Permittee shall demonstrate compliance with the emission standards in Section 2.1 M.2.b. above according to one of the methods specified in §60.4211(b)(1) through (5). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the requirements in this Section 2.1 M.3.h. are not complied with or one of the chosen methods in §60.4211(b)(1) through (5) demonstrate that the emission standards in Section 2.1 M.2.b. above are exceeded.

[§60.4211(b)]

i. The Permittee may operate the CI ICE of the emergency fire water pump (ID No. FWP2) or maintenance checks and readiness testing for up to 100 hours per year provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Operation during an actual emergency shall not be subject to a limit on hours. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Because the Permittee is required to comply with emission standards under §60.4205 for CI ICE of the emergency fire water pump (ID No. FWP2) and not under §60.4204, any operation other than emergency operation, and maintenance and testing as allowed in §60.4211 is prohibited. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the requirements in this Section 2.1 M.2.i. are not complied with.

[§60.4211(f)]

Reporting [15A NCAC 2Q .0508(f)]

j. No initial notifications under §60.7(a)(1) and (3) are required for CI ICE of the emergency fire water pump (ID No. FWP2). [§60.4214(b)]

k. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

N. Sorbent Receiving Trailer (ID No. ES-Sorb-1) and Sorbent Metering Trailer (ID No. ES-Sorb-2) and associated bagfilter (ID No. CD-BF-Sorb-1), and Pneumatic Equipment Trailer (ID No. ES-Sorb-3)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons/hr, or $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons/hr where: E = allowable emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period	15A NCAC 2D .0521

1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

$E = 4.10 \times P^{0.67}$ for **P** $\leq$ 30 tons/hr, or
$E = 55.0 \times P^{0.11} - 40$ for **P** > 30 tons/hr

where: E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1.N.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

c. Particulate matter emissions from these sources shall be controlled by the bagfilter. To ensure that optimum control efficiency is maintained, the Permittee shall perform inspections and maintenance as recommended by the manufacturer implemented in the plant's Work Management System. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement must include the following:
   i. an annual internal inspection of the bagfilters' structural integrity; and
   ii. a monthly visual inspection of the system ductwork, and material collection unit for leaks.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and bagfilter are not inspected and maintained.

d. The results of inspection and maintenance shall be maintained in a log book (written or electronic form) on site and made available to an authorized representative upon request. The log book shall record the following:
   i. the date and time of actions recorded;
   ii. the results of each inspection;
   iii. the results of any maintenance performed on the bagfilter; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

e. The Permittee shall submit the results of any maintenance performed on the bagfilter within 30 days of a written request by the DAQ.

f. The Permittee shall submit a summary report of monitoring and recordkeeping activities by January 30 and July 30 of each calendar year for the preceding six-month period. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources shall not be more than 20 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ.

Monitoring [15A NCAC 2Q .0508(f)]

c. To assure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. The Permittee shall establish "normal" for the source in the first 30 days following start-up of the sources. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 2D .2601 for 30 minutes is below the limit given in Section 2.1 N.2.a above. If the demonstration in (c) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .0508(f)]

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

O.

- **stationary sorbent Silo 1 for Unit 4 (ID No. ES-SORB-5) and associated bagfilter (ID No. CD-SORB-5), stationary sorbent Silo 2 for Unit 4 (ID No. ES-SORB-6) and associated bagfilter (ID No. CD-SORB-6), Unit 4 Silo 1 pneumatic conveying equipment system (ID No. ES-SORB-7), and Unit 4 Silo 2 pneumatic conveying equipment system (ID No. ES-SORB-8)**

- **stationary sorbent Silo 1 for Unit 3 (ID No. ES-SORB-9) and associated bagfilter (ID No. CD-SORB-9), stationary sorbent Silo 2 for Unit 3 (ID No. ES-SORB-10) and associated bagfilter (ID No. CD-SORB-10), Unit 3 Silo 1 pneumatic conveying equipment system (ID No. ES-SORB-11), and Unit 3 Silo 2 pneumatic conveying equipment system (ID No. ES-SORB-12)**

- **stationary sorbent Silo 1 for Unit 2 (ID No. ES-SORB-13) and associated bagfilter (ID No. CD-SORB-13), stationary sorbent Silo 2 for Unit 2 (ID No. ES-SORB-14) and associated bagfilter (ID No. CD-SORB-14), Unit 2 Silo 1 pneumatic conveying equipment system (ID No. ES-SORB-15), and Unit 2 Silo 2 pneumatic conveying equipment system (ID No. ES-SORB-16)**

- **stationary sorbent Silo 1 for Unit 1 (ID No. ES-SORB-17) and associated bagfilter (ID No. CD-SORB-17), stationary sorbent Silo 2 for Unit 1 (ID Nos. ES-SORB-18) and associated bagfilter (ID No. CD-SORB-18), Unit 1 Silo 1 pneumatic conveying equipment system (ID No. ES-SORB-19), and Unit 1 Silo 2 pneumatic conveying equipment system (ID No. ES-SORB-20)**

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons/hr, or $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons/hr where: E = allowable emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period	15A NCAC 2D .0521

1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

$E = 4.10 \times P^{0.67}$ for **P** $\leq$ 30 tons/hr, or
$E = 55.0 \times P^{0.11} - 40$ for **P** > 30 tons/hr

where: E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1.N.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

c. Particulate matter emissions from these sources shall be controlled by the bagfilters. To ensure that optimum control efficiency is maintained, the Permittee shall perform inspections and maintenance as recommended by the manufacturer implemented in the plant's Work Management System. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement must include the following:
   i. an annual internal inspection of the bagfilters' structural integrity; and
   ii. a monthly visual inspection of the system ductwork, and material collection unit for leaks.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and bagfilter are not inspected and maintained.

d. The results of inspection and maintenance shall be maintained in a log book (written or electronic form) on site and made available to an authorized representative upon request. The log book shall record the following:
   i. the date and time of actions recorded;
   ii. the results of each inspection;
   iii. the results of any maintenance performed on the bagfilter; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

e. The Permittee shall submit the results of any maintenance performed on the bagfilter within 30 days of a written request by the DAQ.

f. The Permittee shall submit a summary report of monitoring and recordkeeping activities by January 30 and July 30 of each calendar year for the preceding six-month period. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources shall not be more than 20 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ.

Monitoring [15A NCAC 2Q .0508(f)]

c. To assure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. The Permittee shall establish "normal" for the source in the first 30 days following start-up of the sources. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 2D .2601 for 30 minutes is below the limit given in Section 2.1 O.2.a above. If the demonstration in (c) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .0508(f)]

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to

be in noncompliance along with any corrective actions taken to reduce visible emissions; and

iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

P.

- **One No. 2 fuel oil-fired 287 hp emergency fire water pump diesel engine (ID No. ES-31), and**

- **two propane-fired 34 kW emergency generator spark ignition engines (ID No. ES-32A and ES-32B)**

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
visible emissions	20 percent opacity (except during startup, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period	15A NCAC 2D .0521
HAPs	as defined in specific conditions	15A NCAC 2D .1111 **MACT** 40 CFR 63 Subpart ZZZZ

1. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. Emissions of sulfur dioxide from these sources shall not exceed **2.3 pounds per million Btu heat input**. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

Testing [15A NCAC 2Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1.P.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of No. 2 fuel oil or propane in these sources.

2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources shall not be more than **20 percent opacity** (except during startup, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period. [15A NCAC 2D .0521(d)]

Testing [15A NCAC 2Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1.P.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of No. 2 fuel oil or propane in these sources.

3. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (40 CFR PART 63 SUBPART ZZZZ)

a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements in accordance with 15A NCAC 2D .1111, "Maximum

Achievable Control Technology (MACT) as promulgated in 40 CFR Part 63, Subpart ZZZZ, including Subpart A "General Provisions." [15A NCAC 2D .1111]

Monitoring [15A NCAC 2Q .0508(f)]

b. The Permittee shall comply with the applicable work practice requirements no later than May 3, 2013 for ES-31 and no later than October 19, 2013 for ES-32A and ES-32B. [§63.6595(a)(1)]
c. The Permittee shall operate and maintain the engines at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. [§63.6605]
d. The Permittee shall operate and maintain the engines and after-treatment control device (if any) according to the manufacturer's emission-related written instructions. [§63.6625(e)]
e. The engines shall be equipped with a non-resettable hour meter. [§63.6625(f)]
f. The Permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [§63.6625(h)]
g. The Permittee shall comply with the applicable work practice requirements in Table 2c of Subpart ZZZZ. [§63.6602]
h. The Permittee shall operate the emergency stationary RICE according to the following requirements: [§63.6640(f)(1)]
    i. There is no time limit on the use of emergency stationary RICE in emergency situations.
    ii. The emergency stationary RICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year.
    iii. The emergency stationary RICE may be operated up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing.
i. If any of the above monitoring requirements in this section are not met, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.

Recordkeeping [15A NCAC 2Q .0508(f)]

j. The Permittee shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the stationary RICE and after-treatment control device (if any) are operated and maintained according to the manufacturer's emission-related written instructions. [§63.6655(e)]
k. The Permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. [§63.6655(f)]
l. As specified in §63.10(b)(1), the Permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [§63.6660]
m. If any of the above recordkeeping requirements in this section are not met, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.

Reporting [15A NCAC 2Q .0508(f)]

n. The Permittee shall report any failure to perform the work practice on the schedule required in Table 2c of Subpart ZZZZ and the Federal, State or local law under which the risk was deemed unacceptable. [Footnote 1 of Table 2c to Subpart ZZZZ]
o. The notification requirements in §63.6645 do not apply for these existing stationary emergency RICE engines. [§63.6645(a)(5)]

2.2- Multiple Emission Sources

A. Facility Wide

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
toxic air pollutants	Emissions rates modeled to demonstrate compliance with acceptable ambient levels. **State Only Requirement** See Section 2.2 A.1	15A NCAC 2D .1100

State-Only Requirement

1. 15A NCAC 2D .1100: CONTROL OF TOXIC AIR POLLUTANTS

a. Pursuant to 15A NCAC 2D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following permit limit shall not be exceeded:

Emission Source	Toxic Air Pollutants	Emission Limit
wastewater bio-reactor (ID No. ES-WWTBR)	hydrogen sulfide	54.7 pounds per day
electric utility boilers (ID Nos. ES-Unit 1, ES-Unit 2, ES-Unit 3A, ES-Unit 3B, ES-Unit 4A, and ES-Unit 4B)	arsenic	353 lbs per year
	cadmium	8,411 lbs per year
	manganese	2,304 lbs per day
	nickel	446 lbs per day
	soluble chromate compounds, as chromium (VI) equivalent	46.1 lbs per day
	mercury, aryl and inorganic compounds	44.6 lbs per day

Monitoring/Recordkeeping/Reporting

b. The total amount of waste EDTA (as 100%w $(NH_4)_4$ EDTA)) burned in the electric utility boilers (ID Nos. ES-Unit 1, ES-Unit 2, ES-Unit 3A, ES-Unit 3B, ES-Unit 4A, and ES-Unit 4B) shall not exceed 89,742 lbs per calendar year. The Permittee shall keep records and report to DAQ as follows:
   i. The total amount of waste EDTA injected in each boiler must be recorded on a daily[1] basis and the record kept on file for a minimum of two years.
   ii. The Permittee shall notify the DAQ, Raleigh Regional Office, at least five days prior to burning of waste EDTA cleaning solution.

1 daily records are required only on the days when the Permittee is actually injecting waste EDTA in the electric utility boilers (ID Nos. ES-Unit 1, ES-Unit 2, ES-Unit 3A, ES-Unit 3B, ES-Unit 4A, and ES-Unit 4B).

B. Electric generating units:

- **ES-Unit 1,**
- **ES-Unit 2,**
- **ES-Unit 3A,**
- **ES-Unit 3B,**
- **ES-Unit 4A,**
- **ES-Unit 4B, and**
- **ES-IC Turbine**

Federal-Enforceable Only

1. Cross State Air Pollution Rule (CSAPR) Requirements

For the electric utility boilers **(ID Nos. ES-Unit 1, 2, 3A, 3B, 4A, 4B)** and combustion turbine **(ID No. ES-IC Turbine)**, the Permittee shall comply with all applicable requirements of 40 CFR Part 97, Subpart AAAAA "TR NOx Annual Trading Program", Subpart BBBBB "TR NOx Ozone Season Trading Program", and Subpart CCCCC "TR SO_2 Group 1 Trading Program".

2.3- Permit Shield for Nonapplicable Requirements

This condition is to clarify that issuance of this permit provides no shield from the Act, or regulations promulgated thereunder, including state regulations, pertaining to requirements of the New Source Performance Standards or major or minor new source preconstruction review requirements. The permit may be subject to reopening to include a compliance plan and schedule addressing any past or ongoing noncompliance with those provisions for any affected emission units. [40 CFR 70.6(c)(3), 70.6(f) and 70.7(f)]

The Permittee is shielded from the following nonapplicable requirements as of the date of issuance of this permit based on information furnished with all previous applications. This shield does not apply to future modifications or changes in the method of operation: [15A NCAC 2Q .0512(a)(1)(B)]

A. 15A NCAC 2D .0537, Control of Mercury Emissions, is not applicable to the boilers or turbines because it does not apply to fuel combustion sources.

2.4- Phase II Acid Rain Permit Requirements

ORIS code: 2712
Effective: same as permit issue/expiration, TBD

A. Statement of Basis

Statutory and Regulatory Authorities: In accordance with the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended and Titles IV and V of the Clean Air Act, the Division of Air Quality issues this permit pursuant to Title 15A North Carolina Administrative Codes, Subchapter 2Q .0400 and 2Q .0500, and other applicable Laws.

B. SO_2 Allowance Allocations and NO_x Requirements for each affected unit

SO_2 allowances, per Tables 2, 3, or 4 of 40 CFR part 73.						
Unit	**2010**	**2011**	**2012**	**2013**	**2014**	**2015 and onwards**
Boiler No. 1	11,108*	11,108*	11,108*	11,108*	11,108*	*
Boiler No. 2	19,676*	19,676*	19,676*	19,676*	19,676*	*
Boiler No. 3A	8,902*	8,902*	8,902*	8,902*	8,902*	*
Boiler No. 3B	8,902*	8,902*	8,902*	8,902*	8,902*	*
Boiler No. 4A	10,425*	10,425*	10,425*	10,4254*	10,425*	*
Boiler No. 4B	10,425*	10,425*	10,425*	10,425*	10,425*	*

* The number of allowances allocated to Phase II-affected units by U.S. EPA may change under 40 CFR part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitates a revision to the unit SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).

NO_X limits	
Pursuant to 40 CFR 76.11, the Division of Air Quality approves a NO_X emissions averaging plan for these units, effective from calendar years 2015 through permit expiration, TBD. Under the plan, the actual Btu-weighted annual average NO_X emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO_X emission rate for the same units had they each been operated, during the same period of time, in compliance with the individual applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emission limitation and annual heat input limit. In addition to the described NO_X compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO_X compliance plan and requirements covering excess emissions.	
Boiler No. 1	If the designated representative cannot make the above demonstration (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) for a year under the plan and if this unit fails to meet the annual average alternative contemporaneous emission limitation of **0.250 lb/mmBtu** or has an annual heat input less than **10,341,180 mmBtu**, then excess emissions of nitrogen oxides occur during the year at this unit. A penalty for excess emissions will be assessed in accordance with 40 CFR 77.6.
Boiler No. 2	If the designated representative cannot make the above demonstration (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) for a year under the plan and if this unit fails to meet the annual average alternative contemporaneous emission limitation of **0.250 lb/mmBtu** or has an annual heat input less than **15,794,280 mmBtu**, then excess emissions of nitrogen oxides occur during the year at this unit. A penalty for excess emissions will be assessed in accordance with 40 CFR 77.6
Boiler No. 3A **Boiler No. 3B** (each)	If the designated representative cannot make the above demonstration (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) for a year under the plan and if either unit fails to meet the annual average alternative contemporaneous emission limitation of **0.250 lb/mmBtu** or has an annual heat input less than **9,331,590 mmBtu**, then excess emissions of nitrogen oxides occur during the year at this unit. A penalty for excess emissions will be assessed in accordance with 40 CFR 77.6.

NO_X limits	
Boiler No. 4A **Boiler No. 4B** (each)	If the designated representative cannot make the above demonstration (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) for a year under the plan and if either unit fails to meet the annual average alternative contemporaneous emission limitation of **0.250 lb/mmBtu** or has an annual heat input less than **9,331,590 mmBtu**, then excess emissions of nitrogen oxides occur during the year at this unit. A penalty for excess emissions will be assessed in accordance with 40 CFR 77.6

C. Comments, Notes and Justifications - None.

D. Phase II Permit Application and Phase II NO_X Compliance Plan (attached)

The permit applications submitted for this facility, as approved by the Division of Air Quality, are part of this permit. The owners and operators of these Phase II acid rain sources must comply with the standard requirements and special provisions set forth in the following attached applications:

Acid Rain Permit Renewal Application dated June 26, 2014
Phase II NO_X Compliance Plan and Averaging Plan dated June 23, 2015

SECTION 3- GENERAL CONDITIONS (version 4.0 12/17/15)

This section describes terms and conditions applicable to this Title V facility.

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. **Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environmental Quality upon request.

C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. **Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 02Q .0514]
   The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]
   The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]
   The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]
   The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]
   The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. **Changes Not Requiring Permit Modifications**

1. Reporting Requirements
   Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
   a. changes in the information submitted in the application;
   b. changes that modify equipment or processes; or
   c. changes in the quantity or quality of materials processed.

   If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]
   a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
   b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
      i. the changes are not a modification under Title I of the Federal Clean Air Act;
      ii. the changes do not cause the allowable emissions under the permit to be exceeded;
      iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
      iv. the Permittee shall attach the notice to the relevant permit.
   c. The written notification shall include:
      i. a description of the change;
      ii. the date on which the change will occur;
      iii. any change in emissions; and
      iv. any permit term or condition that is no longer applicable as a result of the change.
   d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
3. Off Permit Changes [15A NCAC 02Q .0523(b)]
   The Permittee may make changes in the operation or emissions without revising the permit if:
   a. the change affects only insignificant activities and the activities remain insignificant after the change; or
   b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 02Q .0523(c)]
   To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I. A **Reporting Requirements for Excess Emissions and Permit Deviations** [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

"Excess Emissions" - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. *(Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.)*

"Deviations" - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
    a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
        i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
            - name and location of the facility;
            - nature and cause of the malfunction or breakdown;
            - time when the malfunction or breakdown is first observed;
            - expected duration; and
            - estimated rate of emissions;
        ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
        iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
    a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I. B **Other Requirements under 15A NCAC 02D .0535**

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 02D .0535(c)(1) through (7).
2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. **Emergency Provisions** [40 CFR 70.6(g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include

noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
   a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
   b. the permitted facility was at the time being properly operated;
   c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
   d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. **Permit Renewal** [15A NCAC 02Q .0508(e) and 02Q .0513(b)]

This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least nine months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 02Q .0507(f)]

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508 (l)]

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including

emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. **Certification by Responsible Official** [15A NCAC 02Q .0520]

A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 02Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
   a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
   b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
   c. the applicable requirements under Title IV; or
   d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 02Q .0503]

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 02Q .0508(i)(8)]

This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
   a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
   b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;

c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q. 0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History [**15A NCAC 02Q .0507(d)(4)]

The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(e)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 02Q .0508(h)]
If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. **Prevention of Accidental Releases General Duty Clause - Section 112(r)(1)** – FEDERALLY-ENFORCEABLE ONLY
Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

FF. **Title IV Allowances** [15A NCAC 02Q .0508(i)(1)]
This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. **Air Pollution Emergency Episode** [15A NCAC 02D .0300]
Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.

HH. **Registration of Air Pollution Sources** [15A NCAC 02D .0202]
The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 02D .0501(c)]
In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. **General Emissions Testing and Reporting Requirements** [15A NCAC 02Q .0508(i)(16)]
Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .0912, .1110, .1111, or .1415 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.
4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
    a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:

i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.

b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

KK. **Reopening for Cause** [15A NCAC 02Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
   a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
   b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
   c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
   d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. **Reporting Requirements for Non-Operating Equipment** [15A NCAC 02Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. During operation the monitoring recordkeeping and reporting requirements as prescribed by the permit shall be implemented within the monitoring period.

MM. **Fugitive Dust Control Requirement** [15A NCAC 02D .0540] - STATE ENFORCEABLE ONLY

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

NN. **Specific Permit Modifications** [15A NCAC 02Q.0501 and .0523]

1. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(d)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
   a. a description of the change at the facility;
   b. the date on which the change will occur;
   c. any change in emissions; and
   d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. **Third Party Participation and EPA Review** [15A NCAC 02Q .0521, .0522 and .0525(7)]

For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.

List of Acronyms

AOS	Alternate Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CSAPR	Cross State Air Pollution Rule
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_X	Nitrogen Oxides
NSPS	New Source Performance Standard
OAH	Office of Administrative Hearings
PM	Particulate Matter
PM_{10}	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound

Phase II Acid Rain Permit Renewal Application
(Received June 26, 2014)
(Five pages)

Phase II Acid Rain Permit NOx Compliance Plan and Averaging Plan

(Received June 26, 2015)

(Seven pages)